1999 UKRAINE

REPRODUCTIVE HEALTH SURVEY

FINAL REPORT

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Introduction

Since the break-up of the Soviet Union in 1991, after which it became an independent state, Ukraine, like the other countries in the region, experienced dramatic and far-reaching political, social, and economic changes. These changes have brought about major transitions in many aspects of life, some positive and some negative. One such area in which substantial change has been taking place is that of the financing and provision of health care and the structure of the Ukrainian health care system.

The transitions that Ukraine has undergone, including those in the area of health care, have no doubt contributed to dramatic changes that have occurred in reproductive health and demographic indicators in recent years. There have been major changes observed in rates of childbearing, abortion, and contraceptive use. There are also unanswered questions about the degree to which there have been changes in such areas as the utilization of maternal-child health services, the prevalence of infertility problems, and maternal behaviors that affect maternal and infant health.

Until recently, relatively little detailed and conclusive information was available about the situation in Ukraine with regard to many important reproductive health topics or the degree to which the reproductive health situation has changed over the past decade, however. The 1999 Ukraine Reproductive Health Survey (URHS) was a population-based, nationwide survey of women of reproductive age carried out from June to October of that year. It constituted the largest and most in-depth data collection effort in the area of reproductive health and related topics since Ukrainian independence.

The URHS was performed in conjunction with the Ukraine Women's Reproductive Health Initiative (UWRHI), a project sponsored by the United States Agency for International Development (USAID). This project consisted of a variety of components, designed to help to reduce maternal morbidity and mortality and improve reproductive health generally in Ukraine. The stated goals of this initiative were to improve the quality of reproductive health services, as well as access to those services, to increase the rate of modern contraceptive use, and to reduce abortion rates in service sites. It was anticipated that improved access to and quality of reproductive health services for women, expanded and improved use of effective contraception, and reduced reliance on abortion as a means of birth prevention would result in reductions in maternal morbidity and mortality.

Seven collaborating agencies took part in the design and implementation of UWRHI activities that were intended to help achieve the following objectives:

- the establishment of demonstration sites for training and delivery of family planning services
- the institutionalization of reproductive health training

- increased public information, education, and communication about family planning
- improved family planning policy environment
- increased supply and distribution of family planning methods
- improved methods of child delivery and maternal care

There were two major reasons for carrying out the 1999 URHS. First, it was intended to fill a substantial need for data regarding the current status of reproductive health of Ukrainian women. Besides providing data on the current situation overall, it also adds to what is known about reproductive health trends and differentials within the population and allows more accurate determinations to be made about the needs of the population. Secondly, the URHS was designed to provide programmatically useful results. The data collected on reproductive health can be used to help direct, modify, or develop interventions, as well as to provide information to policy makers and health care program officials and providers.

Methodology

The 1999 Ukraine Reproductive Health Survey was designed to collect information from a representative sample of all women between the ages of 15 and 44 living in households throughout Ukraine. Although some pregnancy, childbearing, and abortion occurs outside of ages 15 to 44, the relative rarity of these events at those ages in Ukraine suggested that it would be most efficient to limit the sample to women in this age range. The 1999 URHS was implemented by the Kiev International Institute of Sociology (KIIS), which was responsible for selecting the sample of households and individuals, recruiting and training interviewers, conducting field work, processing the data, and performing some of the data analysis. The United States Agency for International Development (USAID) mission in Kiev was the source of all funding for the URHS and was consulted regarding the content of the survey. Technical assistance for all phases of the survey was provided by the Division of Reproductive Health of the United States Centers for Disease Control and Prevention (CDC/DRH).

There were two survey questionnaires: a short household instrument and a much longer individual questionnaire (see Appendix A). The individual form was completed by selected women 15 to 44 years of age who agreed to be interviewed and covered a wide range of topics related to reproductive health status and needs in Ukraine. The sections of the questionnaire were: demographic characteristics; fertility, pregnancy, and abortion; contraception; information, education, and communication (IEC) concerning family planning; women's health; socioeconomic characteristics of respondents; and intimate partner violence.

The survey was designed to obtain interviews with a nationally representative sample of about 7,000 women. The sample was geographically self-weighting, with the exception of substantial over-sampling of two sites--the oblasts of Donetsk and Odessa. Three-stage cluster sampling was used to select survey respondents. Potential respondents consisted of all women between the ages of 15 and 44 years who lived in households anywhere in Ukraine. The first stage of sampling consisted of the selection of approximately 550 primary sampling units (census enumeration districts and postal zones) were selected across Ukraine. The second stage consisted of the selection of

households and women of childbearing age. Field work lasted from June through October of 1999. At least one 15-44 year-old woman was identified as living in 55% of sampled households. Of those women who were selected for interview, 85% were successfully interviewed, 8% were never found at home, and 6% refused to be interviewed.

Characteristics of respondents

Almost three-fourths of respondents were living in areas defined as urban. About half the urban population of women of childbearing age was living in cities of more than half a million people. The survey age distribution closely matched the distribution according to official national estimates. Just over six of every ten respondents were currently living in either a registered or unregistered marriage, 9% were either divorced or separated, 2% were widows, and 23% had never been married or lived with a man. As in most of eastern Europe and the former Soviet Union, Ukrainian women tend to marry at a young age compared to other developed countries. URHS data reveal that most first marriages take place when women are in their early twenties. Only about one-third of women between the ages of 20 and 24 years had never been in a registered or unregistered marriage. Survey data provide no evidence that the age at marriage has been rising in recent years.

Ukrainian women tend to be well educated, as evidenced by the fact that only 11% of respondents had not completed secondary schooling, over two-thirds of women had finished secondary school, but had not received any post-secondary schooling, and one of every five respondents had received some post-secondary education. The largest ethnic-linguistic group consisted of Ukrainians who most often spoke Ukrainian (38%), but there were also large numbers of Ukrainians who usually spoke Russian (24%), mixed language and other language Ukrainians (13%), and ethnic Russians (regardless of language) (21%).

One-half of interviewed women (50%) said they were currently employed outside the home and another 13% were on maternity leave from their jobs at the time they were interviewed. The proportion describing themselves as unemployed (i.e., not working, but wishing to do so) was 18%. Eighty-three percent of respondents' homes had a color television, 43% had a telephone, 32% had a VCR, 25% had an automatic washing machine, and 33% of respondents lived in homes with automobiles.

Pregnancy and fertility

Pregnancy and childbearing represent topics of great interest in Ukraine and neighboring countries. The fact that the fertility rate is far below the replacement level and that the population of Ukraine began decreasing in recent years, due, in large part to extremely low fertility levels, has become a major concern. The 1999 URHS questionnaire collected an extensive amount of information on pregnancy and childbearing.

Childbearing in Ukraine tends to start at a much earlier age than in other developed countries: about one-half of interviewed 20-24 year-olds had already had a child. Among respondents ages 25-29, 84% of women had already borne at least one child. Ukraine's total fertility rate (TFR) according to survey data was about 1.4 births per woman for the two years preceding the survey, similar to the

official figure for Ukraine of 1.3 births. Age-specific fertility rates conform to the typical eastern European pattern, whereby childbearing tends to start and stop at a much earlier age than in other parts of Europe. Childbearing is heavily concentrated in the early years of marriage, with 81% of the TFR accounted for by births occurring before age 30.

Forty-five percent of recent pregnancies to respondents reportedly resulted in a live birth and 7% reportedly ended in miscarriage or stillbirth. The remainder, just under half, were terminated by induced abortion. The proportion of pregnancies resulting in a live birth declined steadily with increasing age, from 59% for 15-24 year-olds to 21% among 35-44 year-olds. Only 15% of pregnancies to women with two previously born children resulted in a live birth.

Fewer than half of recent pregnancies were said by respondents to have been planned at the time they occurred (i.e., the woman wanted to become pregnant at that time). Fifty-four percent were said to unplanned: 17% were mistimed and 38% were unwanted (the woman wanted no more children at the time she became pregnant). The likelihood of a pregnancy being planned fell sharply with increasing age, from 55% for 15-24 year-olds to only 20% for 35-44 year-olds. Pregnancies classified as unwanted resulted in a live birth only 5% of the time.

Almost two-thirds of survey respondents said they wanted no more children. The proportions who wanted no more children increased sharply with the number of living children, from 11% of women with no children to 91% of women with two children and 87% of those with three or more children. Even among women with only one child, about one-half said they wanted no more.

Induced abortion

The incidence of induced abortion in Ukraine, as in most of the former Soviet republics has been very high in recent decades. However, official statistics have revealed that rates have been declining in recent years. Between 1990 and 1998, the official annual rate of abortion incidence fell by over 50%, from 77 abortions to about 36 abortions per 1,000 women of childbearing age.

Overall, 43% of respondents had ever had an induced abortion and 20% had had more than one abortion. Among women in the oldest cohorts (ages 35-39 and 40-44), about two-thirds had had at least one abortion and about one-third had had at least two abortions during their lifetime. Three percent of all women and 8% of 40-44 year-olds listed five or more abortions.

The total induced abortion rate (i.e., the mean number of lifetime abortions per woman based on current age-specific abortion rates) for Ukraine was 1.6 abortions per woman for the two years before interview. The abortion rate was .054, meaning that just over one of every 20 women reported having an abortion during a one-year period. The abortion ratio (i.e., the ratio of induced abortions to live births) was 1.10, indicating slightly more abortions than live births. All of these figures were substantially higher in urban areas than in rural areas. As with fertility, age-specific abortion rates were highest among women in their twenties (.091), followed by women 30-34 years of age (.069).

Fourteen percent of recent abortions resulted in what women described as "complications requiring

medical treatment" immediately or soon after the procedure. Conventional abortions were about 50% more likely than miniabortions (i.e., early vacuum aspiration) to result in short-term complications. Among those women experiencing complications, 37% reported rehospitalization or extended hospitalization as a result. Thirteen percent of women with recent abortions reported that they received no anesthesia in association with the procedure. The likelihood of receiving anesthesia appears to have remained unchanged in recent years.

Infertility

There has been some concern expressed in recent years that infertility may be playing an increasing role in the unprecedentedly low levels of fertility now in effect in Ukraine. Fifteen percent of respondents reported having a problem becoming pregnant in the previous 10 years, with 10% having a problem lasting at least one year and 5% at least five years. Just over half of women who reported having difficulty becoming pregnant in the previous 10 years sought treatment of some kind for this problem. The most common treatment was the prescription of anti-inflammatory drugs, followed by: hormones, physiotherapy, treatments for blockage of the Fallopian tubes, and relaxation/spa therapy. Less commonly used were more costly and invasive treatments, such as laser therapy, laparoscopy, and in vitro fertilization. About half of the women receiving treatment eventually became pregnant. Forty percent had a live birth.

Contraception

Prior to this survey relatively, little national, systematic information existed on most aspects of contraceptive use in Ukraine. The URHS collected information on a broad array of topics related to contraception, including knowledge and use of contraceptive methods, source of methods, contraceptive failure and discontinuation, side effects, and reasons for nonuse of contraception.

Virtually all women knew at least one modern contraceptive method, led by condoms (99% knowledge), the IUD (96%), and oral contraceptives (90%). Knowledge of where to obtain supplied contraceptive methods tended to be almost as high as knowledge of methods, indicating that most women who had heard of a method also knew where they could obtain that method. Overall, 74% of respondents and 87% of those currently in union reported ever using any contraceptive method. The figures for modern methods were 60% and 69%, respectively.

Sixty-eight percent of women in registered or unregistered marriages were currently using contraceptive methods at the time of interview. More women/couples were employing modern methods of contraception than traditional methods (periodic abstinence and withdrawal), though the difference was not great (38% and 30%, respectively). IUDs (used by 19% of women in union) and condoms (14%) accounted for the vast majority of modern method use in Ukraine, with oral contraceptives (OCs) (3%) a distant third. Withdrawal, the most widely practiced method (20%) and periodic abstinence (10%), were also commonly employed.

Contraceptive prevalence looks to have risen steadily in recent years, rising by about 7 percentage points in five years.

Women's consultations and pharmacies were overwhelmingly the leading sources of oral contraceptives, supplying about three of every four users. Women's consultations were the predominant source of IUDs, accounting for two-thirds of those currently used. Pharmacies supplied slightly over half of condom users.

Among survey respondents who were not currently using contraception, three-fourths cited little or no sexual activity, an inability or difficulty in becoming pregnant (subfecundity), current pregnancy, or a desire to become pregnant, as their primary reason for non-use. There was a broad assortment of reasons for non-use given by the remaining 25% of non-users, many of which could be addressed by reproductive health interventions. By the conventional definition, unmet need for contraception was 15%, very high compared with the levels in most other developed countries. Using a definition that includes users of periodic abstinence and withdrawal (methods with typically low use-effectiveness) as having unmet need more than doubles the proportion in need, to 37%.

Overall about 9% of contraceptive users became pregnant while using a method within one year of beginning use. After three years this rose to 19%. The failure rate for the IUD was 1.4% for the first year, which is in line with typical rates. The failure rate for oral contraceptives was 5.9% for the first year and 13.2% for three years. Condom failure was 7.1% for one year and 18.7% for three years. The highest failure rates for widely used methods were found for periodic abstinence and withdrawal. For periodic abstinence 15.6% of users became pregnant in the first year; for withdrawal the rate was 11.7%. Three-year rates for these methods was almost 30%. In general, discontinuation rates were very high across methods. For all methods combined, 29% of contraceptive use segments continued for no more than one year.

Respondents were asked to rate a number of birth prevention methods with regard to safety and health effects, effectiveness, and cost, as well as to give each method an overall rating. The most noteworthy result is the nearly universally highly negative overall opinions held by respondents about both conventional induced abortion (96%) and miniabortion, i.e., vacuum aspiration in the early weeks of pregnancy (95%). Opinions about abortion were equally negative regardless of whether women had ever had an abortion. Abortion was by far the worst regarded method of birth prevention, but every method asked about was rated negatively overall by at least 40% of respondents. With regard to safety and health consequences, induced abortion was again viewed the most negatively of all methods (91% for conventional abortion and 88% for miniabortion).

Despite the fact that most women want to have no more children and that most couples desire no more children long before reaching the end long before their potentially fertile years end, contraceptive sterilization is relatively rare in Ukraine; only 2% of married women of reproductive age with two or more children had been sterilized and virtually no men had undergone a vasectomy. Only 7% of fecund respondents who wanted no more children expressed an interest in sterilization.

Contraceptive counseling

An important component of the Ukraine Women's Reproductive Health Initiative has been the development and implementation of interventions intended to improve health care workers' counseling regarding contraceptive services. Only thirty-nine percent of women with a recent

induced abortion said that a health professional had spoken with them about ways of preventing an unintended pregnancy following their most recent abortion. Only 7% were referred for contraceptive services or counseling. About one out of every seven women undergoing an induced abortion left the facility where it was performed with a contraceptive method or a prescription for one. One-fourth of respondents with recent live births received counseling about contraception subsequent to their delivery.

Just over half of women who recently started using a provider-supplied method said the provider had discussed family planning options with her. About two-thirds of recent IUD, pill, and injection users recalled their provider giving information on potential side effects and what to do about them.

Information, education, and communication (IEC)

Thirty-six percent of women reported seeing family planning information on television and 39% recalled seeing such information in newspapers or magazines in the previous six months. Despite a minority of women recalling seeing information on family planning in the mass media, 85% of women said that information on family planning should be broadcast.

Sexual experience

The URHS included a series of questions designed to study certain aspects of sexual behavior among respondents. The proportions of women who have had sex by the time they turn 16, 18 and 20 years old has increased in recent years, indicating that the age at first sex has been declining somewhat. Of respondents in the 20-24 year-old cohort, 11% first had sexual intercourse before age 16, 42% before age 18, and 74% before age 20.

It has been hypothesized by some in the region that the dramatic declines in fertility and pregnancy rates in recent years in Newly Independent States (NIS) is attributable in large part to a decline in sexual activity rate, rather than other factors. About three-fourths of all sexually experienced respondents reported having sexual intercourse in the previous thirty days, 63% in the previous week, and 16% on the previous day. Among women currently in union, the proportion sexually active was 83% for the past month and 72% for the past week. Four of every ten women in union reported having intercourse at least 10 times in the previous 30 days. The overall median coital frequency was slightly over five times per month. It is difficult to detect in these data any indication that sexual activity rates have declined to a level that would contribute significantly to declines in fertility or pregnancy.

The median age at first sexual intercourse, based on reports of whether young survey respondents had ever had sexual intercourse, was about 18.4 years. The proportion of 15 and 16 year-olds reporting that they had ever had intercourse was 6% and 11% , respectively . However, many girls became sexually active at ages 17 or 18. Just 14% of sexually experienced young women reported that their first sexual intercourse took place following marriage. About equal numbers of women said that their first sexual partner was a "fiancé" or boyfriend (each 36%). Just under half of young women who first had intercourse before marriage (47%) reported that they or their partner used

contraception during her first premarital experience. Condoms accounted for over half of this contraception (28%), with withdrawal the only other commonly used method (13%).

Maternal and child health / Women's health

Ten percent of women received no prenatal care during their last pregnancy leading to a live birth. Another 3% waited until the third trimester of pregnancy to begin prenatal care. In only 65% of recent pregnancies did prenatal care begin during the first trimester, as recommended. Among women who received prenatal care, 81% made at least ten prenatal care visits. Seventy-eight percent of women with recent live births had a diagnostic ultrasound during pregnancy. Eighty-seven percent of women said that they had their blood pressure measured during pregnancy.

Thirty-two percent of women with recent deliveries leading to a live birth reported being hospitalized for prenatal problems. In spite of economic changes and on-going health sector reform, the proportion of women hospitalized was virtually unchanged between 1994-96 and 1997-99. The median stay was between two and three weeks, with two-thirds lasting for two weeks or more. Fifty-five percent of women received a postpartum check-up within six weeks of delivery of their last baby. Overall, 9% of women were cigarette smokers at the time they became pregnant About half of those women reported that they stopped smoking during their pregnancy.

Ninety-two percent of recently born babies were breastfed. The percentage breastfed has not changed significantly in recent years; the proportions were very similar for babies born in 1994-1995, 1996-1997, and 1998-1999. The mean duration of breastfeeding for those babies who were breastfed was 7.5 months.

Nineteen percent of respondents said that they currently smoked cigarettes. Few of the current smokers could be considered heavy smokers, though, with only 3% of women reporting that they typically smoked more than ten cigarettes per day.

Sexually transmitted infections

Knowledge of certain sexually transmitted infections and associated conditions was very widespread: syphilis (2% unaware of it), pelvic inflammatory disease (5%), gonorrhea (9%), and genital ulcers (9%). The conditions about which the most respondents were unaware were human papilloma virus (HPV) (74%), genital herpes (66%), and chlamydia (54%). A very high proportion of women reported having had pelvic inflammatory disease (PID) (38%) or genital ulcers (38%) at some time during their life. Other diseases that an appreciable number of women reported ever having been diagnosed with were: trichomoniasis (4%), syphilis (2%), gonorrhea (2%), and chlamydia (2%). Almost one-third of respondents who experienced symptoms consistent with STIs in the previous 12 months did not consult a health care provider for diagnosis or treatment

About one-third of respondents were not aware that someone could be infected with HIV and exhibit no symptoms. About one-half of women lacked awareness that people with STIs could have no symptoms. Only 6% thought that condoms provided excellent protection against STIs. Five percent of Ukrainian women perceived themselves at high risk for acquiring an STI, with another 6% saying

they were at medium risk, 29% at low risk, and 60% at no risk.

Domestic violence

Almost one of every five respondents recalled that their parents or stepparents abused each other while the respondent was growing up and almost 30% reported that they were physically abused as a child by someone in their household. Nineteen percent of ever-married women had ever had a partner threaten to hit her, 18% had ever been pushed or slapped, 13% had been punched, kicked, or hit with an object, and 4% had been threatened with a weapon. Twenty-one percent had had any of these acts committed against her by her partner. Eight percent had experienced these types of violence within the previous 12 months. Fifty-four percent of women who reported abuse by their partner in the previous 12 months reported sustaining injuries from these incidents.

CHAPTER I

INTRODUCTION

Background

Ukraine is an eastern European country bordered by the Russian Federation to the north and east, six smaller European countries to the west and northwest, and the Black Sea to the south. Its land area is about 604,000 square kilometers (233,000 square miles), making it the largest country entirely within Europe. The population in 1999 was estimated to be about 50 million people, the second most populous of the former Soviet republics. Owing primarily to a major decline in the rate of childbearing in Ukraine, the population of Ukraine has been declining in recent years. It is now estimated to be decreasing at an annual rate of approximately 0.6 percent. The country is divided into 26 oblasts and one autonomous region, the largest administrative divisions within the republics of the former Soviet Union.

Since the break-up of the Soviet Union in 1991, after which it became an independent state, Ukraine, like the other countries in the region, experienced dramatic and far-reaching political, social, and economic changes. These changes have brought about major transitions in many aspects of life, some positive and some negative. One such area in which change has been taking place is that of the financing and provision of health care and the structure of the Ukrainian health care system . The on-going reform in the health care system has significantly affected such factors as the availability, cost, and quality of health care services of all kinds throughout the country (Barr and Field, 1996; Grischenko, 1997).

In addition, the transitions that Ukraine has undergone, including those in the area of health care, have no doubt contributed to substantial changes that have occurred in reproductive health and demographic indicators in recent years (Steshenko and Irkina, 1999; Ukraine Cabinet of Ministers, 1997). There have been major changes noted in rates of childbearing, abortion, and contraceptive use. There are also unanswered questions about the degree to which there have been changes in such areas as the utilization of maternal-child health services, the prevalence of infertility problems, and maternal behaviors that affect maternal and infant health (such as breastfeeding, prenatal care practices, and immunization coverage). However, relatively little detailed and conclusive information was available about the situation in Ukraine with regard to a number of important reproductive health topics or the degree to which the reproductive health situation has changed over the past decade.

This volume is the final report of the 1999 Ukraine Reproductive Health Survey (URHS). This nationwide survey of women of reproductive age was carried out from June to October of that year. It was a population-based survey, intended to generate results on a broad variety of reproductive health topics and to be representative of all women 15 to 44 years of age living in households in Ukraine. It constitutes the largest and most in-depth data collection effort in the area of reproductive health and related topics since Ukrainian independence. Another important national survey conducted in 1996, known as the "Health-1996 Sociological Survey", was somewhat smaller and provided a considerable amount of valuable information on reproductive health, but, since it focused

on other topics as well, did not yield as much detail as the URHS with regard to certain topics, such as family planning and pregnancy outcomes (Cabinet of Ministers of Ukraine et al, 1997) .

The Ukraine Women's Reproductive Health Initiative

The 1999 survey was performed in conjunction with the Ukraine Women's Reproductive Health Initiative (UWRHI), a project sponsored by the United States Agency for International Development (USAID) (Bergthold et al., 1998). This project consisted of a variety of components, all designed to help to reduce maternal morbidity and mortality and improve reproductive health generally in Ukraine. The stated overall goals of this initiative were to improve the quality of reproductive health services and to improve access to those services. The interim goals of the initiative were to increase the rate of modern contraceptive use and to reduce abortion rates in service sites. Those developing the initiative anticipated that improved access to and quality of reproductive health services for women, expanded and improved use of effective contraception, and reduced reliance on abortion as a means of birth prevention would result in reductions in maternal morbidity and mortality.

At the outset of the project, seven collaborating agencies were assigned specific roles in this initiative. The specific strategic objectives of the UWRHI, designed to help Ukraine meet the abovementioned goals were:

- the establishment of demonstration sites for training and delivery of family planning services: each of the sites was to provide family planning services and training
- the institutionalization of reproductive health training: at each demonstration site reproductive health was incorporated into the pre-existing program of refresher training
- increased public information, education, and communication about family planning: the project produced videos, pamphlets, and other products to public awareness and knowledge about family planning
- improved family planning policy environment: carrying out family planning/reproductive health advocacy work targeted at government agencies, legislators, and policy makers
- increased supply and distribution of family planning methods: provision of oral contraceptives, IUDs, and injectable contraceptives to the demonstration sites
- improved methods of child delivery and maternal care: this includes activities to promote breastfeeding, rooming in and other "family centered maternity care" nationwide.

The UWRHI was to a great extent a response of the donor community to a perceived need to improve reproductive health and family planning services in Ukraine. In 1995, the Cabinet of Ministers adopted a National Family Planning program for 1995-2000 that called for widespread provision and promotion of modern contraception and a reduction in the number of abortions. The four primary components of the program were: 1) preventing unwanted pregnancies, 2) providing medical-genetic counseling, 3) treating infertility, and 4) educating the public. However, funds were never made available to implement the program due to an extreme shortfall in the Ministry of Health

(MOH) budget.

The 1999 Ukraine Reproductive Health Survey

As the largest and one of the first nationwide, population-based surveys of reproductive health and related issues to take place in post-independence Ukraine, the 1999 URHS provides a substantial amount of new information on a broad assortment of reproductive health topics. There were two major reasons for carrying out this survey. First, it was intended to fill a substantial need for data regarding the current status of reproductive health of Ukrainian women. Besides providing data on the current situation overall, it also adds to what is known about reproductive health trends and differentials within the population and allows more accurate determinations to be made about the needs of the population in this area. The survey allows tabulation of many basic indicators of, for example, contraceptive use, unintended pregnancy, unmet need for family planning services, use of reproductive health services, contraceptive failure, and abortion and related factors. The data help to determine where in the country particular reproductive health needs and problems are most prevalent or severe and in which segments of the population such problems are the most or least likely to exist.

Secondly, the URHS was designed to provide programmatically useful results. The data collected on reproductive health can be used to help direct, modify, or develop interventions, as well as to provide information to policy makers and health care program officials and providers.
The information coming from the survey should prove helpful for policy makers, health care providers, program officials, international organizations, NGOs, and others working in reproductive health and related fields. Since there are great similarities between Ukraine and other formerly communist republics, this information should also prove valuable for those working in other countries within the region.

The 1999 URHS was also designed to provide important information for a broad cross-section of reproductive health and women's health topics. One of the principle issues that the survey was designed to address was the use of abortion among Ukrainian women. Like most other former Soviet republics and countries under Soviet domination, abortion has been a dominant means of birth prevention for many years. The Ukraine Women's Reproductive Health Initiative was designed to help determine effective means (and implement those means) to reduce reliance on induced abortion as a means of family planning and thereby improve reproductive health. The URHS examined the use of abortion in depth, including such factors as incidence, attitudes, cost, and complications.

A second important issue examined was the use of contraception, in order to look at levels and trends in contraceptive prevalence and method selection and at the extent to which family planning methods are being practiced effectively. The questionnaire included detailed information on many aspects of contraception. Expanded and improved contraceptive use should improve maternal health by reducing the numbers of unintended pregnancies and induced abortions. It is also important to learn more about women's opinions and attitudes regarding specific contraceptive methods and abortion, and about women's knowledge of reproductive health issues, to determine how well informed the population is and to assist in the development of information, education, and communication (IEC) messages.

A broad assortment of other issues were addressed in the survey as well. The URHS was used to learn about such things as the reproductive health services women are using and their opinions about those services, women's health behaviors, sexual activity, sexually transmitted infections, and domestic violence, among others.

The 1999 URHS was also designed to help make determinations about possible impacts of the Women's Reproductive Health Initiative. Examinations of those areas in which it was anticipated that the initiative may have an impact were performed. The survey questionnaire permits analysis of trends in some key topics, such as contraceptive use and abortion, in order to determine whether they have been changing in recent years and in particular areas of the country or segments of the population.

This Final Report describes the key initial findings from the 1999 Ukraine Reproductive Health Survey in all of the areas examined. However, it was not possible to do an exhaustive analysis of data on any single topic, because of the scope and depth of the information collected in the URHS. Data analysis will continue after the publication of this report to utilize the data as fully as possible.

CHAPTER II

SURVEY METHODOLOGY

The 1999 Ukraine Reproductive Health Survey was designed to collect information from a representative household sample of all women between the ages of 15 and 44 living throughout Ukraine, excluding those living in institutional settings. Although some pregnancy, childbearing, and abortion occurs outside the ages 15 to 44, the relative rarity of these events at those ages in Ukraine suggested that it would be most efficient to limit the sample to women in this age range.

Organizational Structure

The 1999 URHS was implemented by the Kiev International Institute of Sociology (KIIS), a professional survey organization with extensive experience in all aspects of social science survey research. KIIS was responsible for selecting the sample of households and individuals, recruiting and training interviewers, conducting field work, processing the data, and performing part of the data analysis. The United States Agency for International Development (USAID) mission in Kiev was the source of all funding for the URHS. USAID also was consulted regarding the content of the survey, to ensure that the information collected would be of maximum value for its projects. Technical assistance for all phases of the survey was provided by the Division of Reproductive Health of the United States Centers for Disease Control and Prevention (CDC/DRH). CDC/DRH was the lead agency in development of the overall survey design, questionnaire construction, coordination of survey activities, and much of the data analysis. The participation of CDC/DRH was funded through a Participating Agency Service Agreement between the USAID Office of Population and CDC/DRH. Other cooperating agencies involved in the Ukraine Women's Reproductive Health Initiative, particularly Johns Hopkins University/Population Communications Services (JHU/PCS) and The Futures Group International, contributed significantly to questionnaire development, as well as other aspects of the survey.

Questionnaire Content

The 1999 URHS consisted of two questionnaires: a short household instrument and a much longer individual questionnaire. Both questionnaires are included in Appendix A of this report. The household questionnaire was two pages long and was administered to any adult living in visited households. It consisted primarily of information regarding the individuals who lived in the household and the location of the residence.

The individual form was completed by selected women 15 to 44 years of age who agreed to be interviewed. This questionnaire covered a wide range of topics related to reproductive health status and needs in Ukraine. The sections of the questionnaire were:

I. ***Social and demographic characteristics of respondents***

II. ***Fertility, pregnancy, and abortion***– includes a complete pregnancy history, detailed information on abortions and live births in the preceding five years, use of maternal

child health services, and infertility problems and treatment.

III. ***Contraception***– includes knowledge and use of specific methods, a month-by-month calendar of contraceptive use in the preceding five years, contraceptive counseling, and detailed information on many aspects of family planning.

IV. ***Information, education, and communication (IEC) and attitudes and beliefs concerning family planning***

V. ***Women's health***– includes information on sexual behavior and sexually transmitted infection knowledge and history

VI. ***Socioeconomic characteristics of respondents***

VII. ***Intimate partner violence.***

Survey design

The survey was designed to obtain interviews with a nationally representative sample of about 7,000 women between the ages of 15 and 44 years of age living throughout Ukraine. The survey was intended to be large enough to provide stable estimates regarding the main topics of interest at the regional level (there are five regions: the North, East, Central, South, and West) and for the urban and rural sectors of Ukraine. The sample was geographically self-weighting, with the exception of substantial over-sampling of two sites--the oblasts of Donetsk and Odessa.

The two oversampled oblasts were the sites for USAID-funded reproductive health activities. Donetsk was a site of activities sponsored by the Women's Reproductive Health Initiative that started in 1996. Odessa was the focus of USAID-sponsored activities implemented by The Policy Project (coordinated by The Futures Group International) that are designed to improve support for family planning activities. Oversampling of these areas was designed to allow local estimates to be made in regard to many of the topics addressed in the URHS.

Three-stage cluster sampling was used to select survey respondents. Potential respondents consisted of all women between the ages of 15 and 44 years who lived in households anywhere in Ukraine. The first stage of sampling consisted of the selection of primary sampling units (PSU). Approximately 550 primary sampling units were selected across Ukraine. The sample was selected proportional to population size (PPS) of each of the country's 26 oblasts and autonomous regions (with the exception of Odessa and Donetsk). Within each oblast the sample was split proportionally into five size-of-place categories, ranging from large cities to rural areas, using software that listed the estimated population of all locations. Population estimates were based on yearly updates made to census counts. Unfortunately, the most recent census in Ukraine took place when it was still part of the Soviet Union, in 1989. Within each size of place/oblast category, PSU (census enumeration districts) were selected with probability proportionate to size. Within rural areas, post offices were selected instead of places, under the assumption that all post offices cover roughly the same population. This process guarantees a selection of households approximately proportional to the

entire population according to oblast and size of place.

The second stage of sampling consisted of the selection of dwelling units and respondents from the selected PSU. Within each selected PSU a random starting point was chosen, followed by selection of contiguous dwelling units, selected in a predetermined order. The number of dwellings visited per PSU varied from 23 to 30, depending on the size of place, since the average number of women of childbearing age per household varies according to size of place. Selection of women for interview was accomplished in the third stage by listing women in each visited household by descending age and selecting every second woman listed regardless of the household in which she was found. However, this procedure was slightly modified to ensure that no more than one woman per household was interviewed

Data Collection

The questionnaires were pretested in November 1998. Eight interviewers conducted pretest interviews with a total of about 50 women in Kiev and a nearby rural area. Based on these interviews, the survey questionnaires were modified. Data collection for the 1999 URHS was carried out by about 150 female interviewers living throughout Ukraine, most of whom were highly experienced in conducting interviews. Staff from KIIS, assisted by Dr. Petr Velebil, a Russian-speaking obstetrician-gynecologist and epidemiologist from the Czech Republic, conducted interviewer training sessions. Five such sessions were held, two in Kiev, one in Donetsk, one in Odessa, and one in L'viv. Each session had about 25-30 interviewers attending. Interviewer training sessions consisted of intensive training in field procedures and administration of the questionnaire.

Field work lasted from June through October of 1999. Each interviewer was assigned to visit a small number of PSU in the part of the country in which she lived. Interviews took place at respondents' homes and typically lasted from 60 to 75 minutes. Each interviewer forwarded her completed questionnaires to her regional supervisor, who reviewed each questionnaire and, if satisfactorily completed, sent it to the KIIS office in Kiev for data entry and final editing.

Response rates

At least one 15-44 year-old woman was identified as living in 55% of sampled households (Table 2.1, upper panel). In most of the remaining households, there were no resident females eligible for interview. Residents refused to provide interviewers with information concerning the household or its residents in fewer than 1% of the households visited. The difference between urban and rural areas was small, with urban households slightly less likely than rural ones to contain women eligible for interview.

The lower panel of Table 2.1 presents information on response rates for women who were selected for interview. Of those 15-44 year-old women who were identified as living in visited households and selected as potential respondents, 85% were interviewed. The figure was somewhat higher in rural areas (89%) than in urban areas (84%). Eight percent of women selected for interview were never found at home and 6% refused to be interviewed. Individual refusal rates were about twice as high in urban areas as in rural areas.

Table 2.1
Percentage distribution of household and individual final interview status, by residence
1999 Ukraine Reproductive Health Survey

	Total	Urban	Rural
Selected households			
Eligible woman identified	54.9	54.0	58.3
No eligible woman in household	43.5	44.3	40.2
Household refusal	0.6	0.7	0.2
Residents not at home	0.7	0.6	0.9
Unoccupied household	0.2	0.3	0.1
Other	0.3	0.3	0.3
Total	100.0	100.0	100.0
Number of households visited	*16,886*	*13,383*	*3,503*
Selected eligible women			
Completed interviews	85.2	84.1	89.0
Selected women refused	5.6	6.3	3.0
Selected woman absent	7.7	7.9	6.9
Woman not competent	0.4	0.5	0.2
Other	1.2	1.2	0.9
Total	100.0	100.0	100.0
Number of selected women	*8,367*	*6,587*	*1,780*
Number of women interviewed	*7,128*	*5,544*	*1,584*

CHAPTER III

CHARACTERISTICS OF RESPONDENTS

This chapter presents selected social, economic, and demographic characteristics of the women who were interviewed in the 1999 URHS. The URHS included modules that covered such topics as demographic characteristics, marriage, education, language, ethnicity, religion, employment, and other economic topics. These data provide important background information about the population of women of childbearing age in Ukraine, giving some important insights into their social and economic conditions, as well as such things as the degree of heterogeneity and diversity in the population. It also lets us know the extent to which the survey sample is representative of Ukrainian population of women of childbearing age as a whole.

Demographic and social characteristics

Table 3.1 displays percentage distributions of URHS respondent characteristics according to selected demographic and social characteristics. Almost three-fourths of respondents (73%) were living in areas defined as urban. The remaining 27% lived in rural areas, i.e., villages or farms. This distribution has less to do with Ukraine being a heavily urbanized country than it does with the fact that the definition of urban includes settlements down to quite a small size. About half the urban population of women of childbearing age was living in cities of more than half a million people.

With the exception of the Oblasts of Donetsk and Odessa, which were intentionally oversampled, the percentage distribution of the population by oblast was very similar in the sample and Ukraine's official population statistics (data not shown). Donetsk constituted 21.7% of the sample, but only 10.1% of the total population, while the figures for Odessa were 17.9% and 5.2%, respectively. During analysis, sample weights have been applied to the results to compensate for this oversampling. With the appropriate sample weights the percentage distribution by oblast is similar to the official population estimates. All results presented in this report are based on weighted data, adjusting for oversampling in Donetsk and Odessa, but unweighted totals are shown in the report's tables.

The age distribution closely matched the distribution according to official national estimates. The distribution was very flat, with very similar proportions of respondents in each five-year age group, ranging from 16.4% for ages 20-24 to 17.3% for ages 35-39. The urban and rural age distributions were also very similar to each other.

Just over six of every ten respondents were currently living in either a registered or unregistered marriage, with unregistered marriages being relatively rare (4% of women). Another 9% of respondents were either divorced or separated and 2% were widows. Twenty-three percent of women had never been in union (i.e., married or lived with a man). The percentage of women in registered marriages was considerably higher in rural areas than in urban areas (70% vs. 60%, respectively), principally a function of earlier age at marriage in rural Ukraine. The percentage divorced or separated was almost twice as high in urban areas as in rural areas.

Ukrainian women tend to be well educated, as evidenced by the fact that only 11% of respondents had not completed secondary schooling. About half of that 11% were 15-19 years old, so many of them, no doubt, were still in secondary school and will eventually complete it. Just over two-thirds of women had finished secondary school, but had not received any post-secondary schooling. Additionally one of every five respondents had received some post-secondary education. Within the "completed secondary" category there is considerable variation among women in educational attainment. A majority of women in this category obtained some additional professional technical training in addition to secondary school. The greatest difference between urban and rural women in educational attainment was that the former were about twice as likely as the latter to have received any post-secondary education (23% vs. 13%, respectively). Rural women were slightly more likely not to have completed secondary school.

Women's stated nationality was cross-classified with the language they most often spoke. This was done because neither nationality nor language alone completely describes the extent to which people may be considered to be ethnically Russian, Ukrainian, mixed, or something else, in a society with a long history of large populations of Ukrainians and Russians and not always a clear distinction between the two. The largest ethnic-linguistic group consisted of Ukrainians who most often spoke Ukrainian (38%), but there were also large numbers of Ukrainians who usually spoke Russian (24%), mixed language and other language Ukrainians (13%), and ethnic Russians (regardless of language) (21%). In rural areas, over two-thirds of women were Ukrainian-speaking Ukrainians and only 10% classified themselves as ethnic Russians. A clear majority of Russian-speakers are urban residents.

With regard to religion, about three of every four respondents said they were Orthodox, while 11% described themselves as having no religion. Urban respondents were more likely that rural women to say they had no religion (13% vs. 7%, respectively). Although a high proportion of women reported belonging to a religion, relatively few attended religious services on a regular basis. Only 12% said they attended services at least monthly, with about half of them attending weekly. Even though the overall level of attendance was relatively low, the percent who never attended was lower in rural areas (26%) than in urban areas (35%).

Table 3.2 displays most of the same characteristics as Table 3.1 according to respondents' region of residence. It is clear that there are major social and demographic differences between different parts of Ukraine, with the most notable differences between the Western region and the rest of the country. In The West there were roughly equal percentages of respondents in urban and rural areas, making it much more rural than the other parts of Ukraine. The East, Ukraine's most industrialized region, on the other hand is the most urban region (86%). Age distributions were very similar across regions. Western women were the most likely to be in a registered marriage and the least likely to be in an informal or unregistered union. There were major regional differences in language and ethnicity. The proportion of women reporting themselves to be predominantly Ukrainian-speaking and ethnically Ukrainian varied tremendously, ranging from 89% in the West and 72% in the Central region to only 5% in the South. On the other hand the percentage who were ethnically Russian ranged between 35% in the East to less than 3% in the West. In all regions except the West, an overwhelming majority of respondents said they were Orthodox (78%-85%). In the West, Orthodox was also in the majority, but much less so than elsewhere (58%). Attendance at religious services

was considerably more frequent in the East than elsewhere (18% at least weekly and 17% at least monthly), but even there most women attended services infrequently. Attendance was least common in the Central and Eastern regions.

Economic characteristics

Since the break-up of the Soviet Union and the downfall of communism in this part of the world, Ukraine has been undergoing dramatic economic changes. The dissolution of the former economic system and the concurrent growth of capitalism and privatization has led to economic freedoms that did not previously exist. The transition to a market economy, however, has also had some serious negative consequences for many individuals, at least in the short run. Certain economic protections, such as employment security and controlled prices, no longer exist. The URHS included several questions related to women's employment and other economic issues.

One-half of interviewed women (50%) said they were currently employed outside the home and another 13% were on maternity leave from their jobs at the time they were interviewed (Table 3.3). The proportion describing themselves as unemployed (i.e., not working, but wishing to do so) was quite high, at 18%. The employment situation was somewhat worse in rural areas than in urban areas. The percent unemployed was 22% in the former, compared with 17% in the latter. There were substantial differences in unemployment according to region, with the proportions ranging from 14% in the heavily industrialized East to 22% in the West, the most rural region of Ukraine (data not shown).

The bottom panel of Table 3.3 displays the percentages of women who reported that they lived in households containing various possessions or amenities. Eighty-three percent of respondents' homes had a color television, 43% had a telephone, 32% had a VCR, 25% had an automatic washing machine, and 33% of respondents lived in homes with automobiles. With the exception of automatic washing machines and automobiles, urban women were substantially more likely than rural women to have each of the possessions and amenities asked about.

Marriage

As is true throughout most of eastern Europe and the former Soviet Union, women tend to marry at a very young age compared to other developed countries. URHS data reveal that most first marriages take place when women are in their early twenties. Only about one-third of women between the ages of 20 and 24 years had never been in a registered or unregistered marriage (Table 3.4 and Figure 3.1). By ages 25-29 relatively few women (8%) had never been in union. Marriage has also been much more universal than in other developed countries. In the two oldest cohorts of women interviewed, the proportions of women who had never been in union were very low, below 3%. Divorce and separation, while not at the levels found in many western countries, is not a rare occurrence. Starting with the 25-29 year-old cohort, 10% or more of each cohort was currently divorced or separated.

It also is evident that rural women tend to marry somewhat earlier than urban women. Among 20-24

year-olds, only 22% of rural respondents had never been in either a registered or unregistered marriage, compared with 41% in urban areas. In addition, the proportion of older respondents never in union was even lower in rural areas (under 2%) than it was overall. Divorce and separation was also less common in rural areas than in urban areas.

Table 3.5, showing proportions of women ever in union and currently in union, confirms the tendency to marry young among Ukrainian women. Almost two-thirds of women between the ages of 20 and 24 years had already been in a registered or unregistered marriage (i.e., in union), and by ages 25-29, 93% had ever been in union (Table 3.5). In rural areas, age at marriage tends to be even younger than overall. 78% of 20-24 year-olds and 94% of 25-29 year-olds there had ever been in union.

Table 3.6 allows one to look at recent trends in age at marriage, by showing the percentage of respondents in 5-year age various cohorts who had ever been in union before various ages. The main finding from this table is that there is no sign that age at marriage has been rising in recent years. The proportions of women who had married by 20 was relatively constant in the 20-24, 25-29 and 30-34 year-old cohorts, with slightly over four of every ten women married before age 20. This indicates little change in the age at marriage. There are also no signs of increasing age at marriage among younger cohorts. About 14-15% of 20-24 and 25-29 year-olds were already in union by age 18. By age 25, almost nine out of every ten women had been in union. These figures are typical for most of eastern Europe but are extremely high compared to other parts of the continent, where marriage most often takes place in the late twenties and thirties.

CHAPTER IV

PREGNANCY AND CHILDBEARING

The 1999 URHS questionnaire collected an extensive amount of information on pregnancy and childbearing. The survey instrument contained a complete pregnancy history, that included, for every pregnancy: its outcome, whether the pregnancy was intended, its duration (in months), and the gender of each live-born child. In addition, for pregnancies resulting in a live birth since the beginning of 1994, more detailed information was collected on prenatal care, hospitalization during pregnancy, and breastfeeding.

Pregnancy and childbearing represent topics of considerable interest in Ukraine and nearby countries. In most countries of the region fertility has fallen to unprecedentedly low levels in recent years, with levels well below the replacement level of 2.1 births per woman. Figure 4.1 displays fertility rates for the year 2000 for selected European countries, including most of the countries formerly part of the Soviet bloc. There is considerable concern about these topics for a number of reasons. Fertility rates that have fallen to such a low level in Ukraine have led to worries about declining population size as well as related concerns, such as a rapidly aging population and an eventual shortage of working age people in the population. In fact, the population of Ukraine began decreasing in recent years, due, in large part to extremely low fertility levels. The decline is now estimated to be about 0.6%, about 300,000 people, per year. Despite the low level of fertility, there remain concerns, however, about very high rate of unintended pregnancy, which fuels the high incidence of induced abortion.

The vital statistics system in Ukraine is considered to be quite complete in the area of fertility. Thus, official estimates of fertility rates are probably reliable. However, the URHS provides information on other aspects of pregnancy and childbearing that are not generally available from other sources. In this chapter we provide survey findings such topics as: pregnancy rates, pregnancy outcomes, fertility patterns, additional children desired, and the planning status of recent pregnancies.

Fertility and pregnancy levels and patterns

As in much of eastern Europe and the former Soviet Union, childbearing in Ukraine tends to start at a much earlier age than in other developed countries. About one-half of interviewed 20-24 year-olds had already had a child and the average number of live births for women in that cohort was about 0.6 (Table 4.1). Childbearing tends to begin earlier in rural areas, where 63% of 20-24 year olds had had a live birth, than in urban areas, where 46% had begun childbearing. Among respondents ages 25-29, 84% of women had already borne at least one child. Mean family size for the oldest cohorts (which can reasonably be viewed as completed family size, since few women have children after about age 35) was 1.8 births per woman. Childlessness, at least in the older cohorts, was still fairly uncommon, with about 6% of the oldest respondents reporting that they had had no live births. Proportions of women with any live births and mean numbers of births were slightly, but consistently, lower among urban women than among rural women across cohorts.

Table 4.2 is identical to Table 4.1, except that it shows numbers of pregnancies rather than live births. Only about 9% of 15-19 year-olds reported ever having been pregnant, but among 20-24 year-olds, the figure was 61%. Because of the high levels of induced abortion, the mean numbers of pregnancies were far higher than the number of live births, starting at ages 25-29. In the three oldest cohorts, fewer than 5% of women reported that they had never been pregnant. The proportions ever pregnant were consistently higher among rural women than among urban women.

The total fertility rate (TFR) (i.e., the mean number of children per woman based on current age-specific fertility) according to survey data was about 1.4 births per woman for the two years preceding the survey (Table 4.3). This was not substantially different from the official figure for Ukraine of 1.3 births. As in almost all of Europe, Ukraine's total fertility rate is well below the replacement level of 2.1 births per woman. Age-specific fertility rates conform to the typical eastern European pattern, whereby childbearing tends to start and stop at a much earlier age than in other parts of Europe. Fertility is heavily concentrated in the early years of marriage, with 81% of the TFR accounted for by births occurring before age 30 (Figure 4.2). By far the highest fertility is at ages 20-24, where 11.5% of women bear children in a one-year period, almost twice as high as any other age group.

The TFR in rural areas was almost 50% higher than in urban areas, 1.8 compared to 1.3 births per woman. The only age group in which there was not a substantial difference between urban and rural areas was at ages 25-29. There was considerable variation in fertility levels across Ukraine's regions. The TFR ranged from 2.0 in the western region, which is the most rural and the most ethnically Ukrainian part of the country, to 1.1 in the East, which is the most industrialized and most ethnically Russian region. The central northern, and southern regions all have fertility rates of 1.4 to 1.5. In all regions the age pattern of childbearing is similar, heavily concentrated in the twenties and extremely low after ages 30-34. Fertility was much lower among women with any post-secondary education (TFR=1.1) than among women with less formal education.

Table 4.4 shows that the total pregnancy rate (TPR) for the two years prior to the survey was 3.1 for Ukraine as a whole, meaning women average just over three pregnancies apiece during their lifetime, just over twice the total fertility rate. The age pattern of pregnancy is quite similar to that for fertility, but the age-specific pregnancy rates are highest relative to the fertility rates at the oldest ages. This is an indication that most abortions take place after women have completed childbearing, rather than to delay childbearing. Despite having the highest fertility rates, the West region has one of the lowest pregnancy rates, probably because of relatively low induced abortion incidence.

Table 4.5 demonstrates that childbearing continues to typically begin shortly after marriage for Ukrainian couples. Among women in union for less than five years, 82% had ever been pregnant and 69% had had a live birth. Only about one percent of the oldest cohort of women who were ever in union never became pregnant and never had a live birth. Even among those married as recently as 5-9 years earlier, 96% had ever been pregnant and 92% had had a live birth. Almost all figures were slightly higher among rural women than among urban women.

Table 4.6 presents percentage distributions of the number of live births to women according to age. The most interesting information in this table is the relatively small number of women with no live

births (at least at the older ages) and the similarly small numbers with large families. Women with more than three children have become quite rare and with the recent decline in fertility rates will no doubt, become even rarer. Family sizes other than one or two children are becoming less common. Large families (more than two children) are considerably more common in rural areas than urban areas. Table 4.7 shows live birth distributions by years since first union and leads to conclusions similar to the previous table. Few women married 10 or more years report having no children.

Table 4.8 allows an examination of changes over time in the onset of childbearing. The percentage of women with births before particular ages has not changed substantially with the exception of somewhat of an increase in births before age 20, from 19% for the oldest cohort to 26% for 20-24 year-olds. Even though childbearing starts relatively early for most women, few women begin childbearing at very young ages (i.e., before about age 18), with births before age 16 almost nonexistent. Once again it is possible to see the concentration of childbearing beginning in the early twenties: about one-quarter reported a birth by age 20, but about three-quarters by age 25.

Table 4.9 displays the percentage distributions of numbers of pregnancies according to age at the time of interview. The general conclusions are similar to those seen with regard to live births. However, especially among the older cohorts, there are substantial numbers of women who have had a large number of pregnancies (about one-fourth of 40-44 year-olds had five or more pregnancies), a result of the very high abortion rates in effect, especially in previous decades.

Pregnancy Outcomes

Forty-five percent of pregnancies to respondents that ended since January 1994 resulted in a live birth and 7% reportedly ended in miscarriage or stillbirth (Table 4.10 and Figure 4.3). The remainder, just under half of pregnancies, were terminated by induced abortion. The ratio of conventional surgical abortions to miniabortions was slightly higher than 3:2 for Ukraine as a whole (with under 1% of pregnancies ending in abortions that were self-induced or otherwise performed without professional medical or surgical intervention). The proportion of pregnancies resulting in a live birth declined steadily with increasing age, from 59% for 15-25 year-olds to 21% among 35-44 year-olds. This again supports the contention that most couples still have their children shortly after marriage, while they are still young. The West has a much higher proportion of live births (65%) than elsewhere (37%-45%). Pregnancies to women with no previous live births were the most likely to result in a live birth (76%). Only 15% of pregnancies to women with two previously born children resulted in a live birth however, demonstrating the strong desire among most women to have no more than two children. The small group of women with three or more children were much more likely to have pregnancies end in a live birth. Rural pregnancies were more likely than urban pregnancies to result in a live birth. Differences in birth outcomes by educational attainment were small.

Planning status of pregnancies

Table 4.11 shows that fewer than half of pregnancies ending in 1996 or later (44%) were said by

respondents to have been planned at the time they occurred (i.e., the woman wanted to become pregnant at that time). Fifty-four percent were said to unplanned: 17% were mistimed (i.e., she wanted to wait longer to become pregnant) and 38% were unwanted (she wanted no more children at the time she became pregnant). Given such high levels of unintended pregnancy and widespread acceptance and availability of induced abortion, it is not surprising that there are high rates of abortion in Ukraine.

Since women/couples in Ukraine still tend to have a child or children shortly after marriage, it is not surprising that the likelihood of a pregnancy being planned fell sharply with increasing age, from 55% for 15-24 year-olds to only 20% for 35-44 year-olds (Figure 4.4). Likewise, pregnancies were more likely to be unintended as the number of living children rose to two. Among the relatively small number of women with three or more children the likelihood of the pregnancy being planned rose again. The proportion of pregnancies categorized as unwanted rose from 19% to 73%. Pregnancies were the most likely to be planned in the West (56%) and least likely in the East (36%). They were also more likely to be planned in rural areas than urban areas. There was little difference according to respondent's education. Of course, pregnancies ending in live birth were the most likely to be planned (80%) and those ending in abortion were the least likely (18%).

The most important point revealed in Table 4.12 (outcome according to planning status of the pregnancy) is that pregnancies classified as unwanted rarely (5% of the time) resulted in a live birth. In 92% of unwanted pregnancies, the pregnancy was terminated by abortion. In urban areas, only 3% of unwanted pregnancies resulted in a live birth. Mistimed pregnancies were much more likely to end in a live birth, 35% of the time. Planned pregnancies ended with a live birth 84% of the time, with 11% ending in miscarriage or stillbirth and 5% terminated by induced abortion.

Pregnancy Intentions

Respondents who reported that they were able to become pregnant were asked how many more children they would like to have. Overall, almost two-thirds (66%) of survey respondents said they wanted no more children (Table 4.13). As might have been expected, the proportions who wanted no more children increased sharply with the number of living children, from 11% of women with no children to 91% of women with two children and 87% of those with three or more children (Figure 4.5). Even among women with only one child, about one-half said they wanted no more, showing that one-child families have become a very acceptable option in Ukrainian society. Very few women who already had children reported that they wanted to have more than two children altogether. Among women with one living child, only 4% said they wanted at least two more. Among those with two living children, fewer than 1 % said they wanted any more. Only those without children yet were somewhat likely to report wanting at least three children (17%). In spite of the substantial differences noted in fertility levels between urban and rural areas of Ukraine, urban-rural differences in fertility preferences were very small.

Table 4.14 displays numbers of children planned at the time of interview compared with the number planned at the time respondents desired at the time of their first marriage. It is worth noting that the category of women wanting no children when they married is not included because there were only 10 such women, a dramatic demonstration of the persistence of a pronatalist attitude in Ukraine,

despite the extremely low level of childbearing in effect in recent years.

CHAPTER V

INDUCED ABORTION

The incidence of induced abortion in Ukraine, as in most of the former Soviet republics, has been very high in recent decades (Popov, 1991; Blayo, 1993). However, official statistics have revealed that rates have been declining in recent years. Figure 5.1 shows the trend in induced abortion rates in recent years in Ukraine, according to official Ministry of Health statistics. (These figures have been adjusted to eliminate miscarriages and stillbirths, which are usually combined with induced abortions when official statistics are compiled.) It is readily seen that the trend in abortion rates has been steadily downward since at least the middle of the 1980s. Between 1990 and 1998, the official rate of abortion incidence fell by over 50%, from 77 abortions to about 36 abortions per 1,000 women of childbearing age. Figure 5.2 shows abortion rates based on recent survey data for several countries in eastern Europe and the former Soviet Union. Abortion rates in these countries have been among the highest in the world for several decades. Although the rate for Ukraine is considerably lower than in some other countries in the region, it is still quite high by international standards. As we will see below, abortion remains perhaps the most important means of birth prevention in Ukraine, despite the recent decline in incidence.

Proportions of women with any abortions

By any measure, induced abortion is a common procedure in Ukraine. The simplest way to look at the incidence of abortion is to examine the proportion of women who undergo the procedure. Overall, 43% of respondents had ever had an induced abortion of any type (Table 5.1). Twenty percent of respondents had had more than one abortion. These figures tend to understate the incidence of abortion, however, since many younger women have not yet been at risk or have been at risk for a relatively short time for unintended pregnancy or, therefore, abortion. Among women in the oldest cohorts (ages 35-39 and 40-44), about two-thirds had had at least one abortion and about one-third had had at least two abortions during their lifetime (Table 5.1). Women between 40 and 44 years of age averaged 1.6 abortions. However, since most of the abortions to women in the oldest cohorts did not take place recently, these figures may not be good indicators of recent abortion activity. Few females under the age of 20 reported having had any induced abortions. Percentages of women with abortions, as well as mean numbers of abortions, were consistently higher in urban areas than in rural areas.

Table 5.2 shows that the percentages of women with any abortions differ relatively little between the North, Central, South, and East regions of the country, but the percentage is far lower in the West, the part of the country that is the most ethnically Ukrainian and the most rural; only 28% of women reported any abortions (compared to 43% nationally) and 9% reported having more than one abortion (compared to 20% nationally). Women with the least education were less likely than other women to have had abortions. Abortions were the least common among ethnically Ukrainian women who spoke primarily Ukrainian and were highest among women describing themselves as ethnically Russian.

Although the largest numbers of women reported having had only zero or one abortions, many respondents reported having multiple abortions (Table 5.3). Three percent of all women and 8% of 40-44 year-olds listed 5 or more lifetime abortions.

Current incidence of abortion

The total induced abortion rate (i.e., the mean number of lifetime abortions per woman based on current age-specific abortion rates) for Ukraine as a whole was about 1.6 abortions per woman for the two years before interview (Table 5.4). The abortion rate (i.e., the probability that a woman reported having an abortion during the previous 12 months) was .054, meaning that just over one of every 20 women have an abortion during a one-year period. The abortion ratio (i.e., the ratio of induced abortions to live births) was 1.10, indicating about equal numbers of abortions and live births. All of these figures were substantially higher in urban areas than in rural areas. As with fertility, age-specific abortion rates were highest among women in their twenties (.091), followed by women 30-34 years of age (.069) (Figure 5.2).

It should be noted that the induced abortion rate according to the survey (.054) was about 30 percent higher than the official rate published by the Ministry of Health (about .039 for the same period). This is an indication that the official statistics miss a significant proportion of abortions that are occurring, possibly because many abortions are being performed by providers who are not reporting them for any number of reasons. It also is an indication that reporting of abortion experience among URHS respondents tended to be relatively complete. If, in fact, the official rates of abortion are somewhat underreported, it makes it difficult to draw conclusions on the actual trends in abortion rates in recent years.

Table 5.5 shows abortion indicators according to region and respondents' educational attainment. Abortion levels were slightly higher in the South then elsewhere (TAR=2.05, compared to 1.57 nationally) and much lower in the West, where the rate was only 0.77 abortions per woman. Abortion rates tended to be slightly lower among the best educated women than among other Ukrainian women.

Table 5.6 displays total pregnancy, fertility, and abortion rates according to selected characteristics of respondents. During the two years prior to interview, the total pregnancy rate was barely above three pregnancies per woman, with slightly higher rates of abortions than live births. The total abortion rate in Donetsk Oblast, one of the UWRHI project sites, was slightly above the national rate. The rate in Odessa was about the same as the national rate.

Types of abortions, complications, and cost

Until fairly recently, almost all induced abortions in Ukraine consisted of procedures that would be considered "conventional abortions" in the West. However, many abortions now performed are what are commonly referred to as "miniabortions". This procedure, also sometimes referred to as "menstrual regulation", is performed using vacuum aspiration early in pregnancy. It tends to be a simpler, more easily performed procedure than those employed for conventional abortions. Of all abortions undergone by survey respondents since the beginning of 1994, 61% were reported to be conventional abortions and 38% were miniabortions (Table 5.7). An additional 1% were reported as self-induced or otherwise performed outside of a medical setting. The distribution of types of abortion seems to be stable, with similar distributions in 1994-1996 and 1997-1999. Miniabortions were most common among 25-34 year-old women (39%), in the North region (54%), in urban areas (39%), and among the best educated women (49%). They were least common relative to conventional procedures in the East region (30%).

Women were asked about complications and health problems associated with each of their recent induced abortions (including miniabortions) since the beginning of 1994, both "soon after" and at least six months after the procedure. Fourteen percent of abortions performed since January 1994 resulted in what women described as "complications requiring medical treatment" immediately or soon after the procedure (Table 5.8, left-hand panel). As might have been expected, conventional abortions were about 50% more likely than miniabortions to result in short-term complications (16% vs. 11%). Although the differences were not statistically significant, complication rates were slightly higher among urban women than rural women for each type of abortion. When interpreting these data, it should be kept in mind that what constitutes a "complication" is subjectively defined by the respondent and not by medical personnel.

Among those women experiencing complications, 37% (5% of all women undergoing abortions) reported rehospitalization or extended hospitalization as a result, with a higher likelihood of hospitalization following conventional abortions (39% vs. 32%) (Table 5.8, center panel). Six percent of abortions were reported to have resulted in long-term problems, with the likelihood of problems twice as high from conventional abortions as from miniabortions (Table 5.8, right-hand panel). There were no notable differences in long-term complication rates between urban and rural areas.

When asked why they decided to have an abortion, the overwhelming majority of women gave as their primary reason that they wanted no more children (60%) or gave what were considered to be "social/economic reasons", i.e., such reasons as inadequate resources or inadequate housing (25%) (Table 5.9). Smaller numbers of abortions were attributed to such factors as: continuing the pregnancy presented a health risk for the woman (4%), not being married (4%), the woman's partner did not want a child (2%), and a risk of birth defects (2%). The percentage wanting no more children, not surprisingly, rose with age. It was also the lowest in the South region. Social/economic reasons were most often given by the least well educated women, whom it is assumed could least afford larger families.

Thirteen percent of abortions occurring in 1997 or later were free of charge to women (Table 5.10). An additional 14% were paid for with goods or services, rather than with money. Thus, about 7 of every 10 abortions were paid for with money. The vast majority of these (63% of all abortions) were reported to have cost the equivalent of less than US $30. Only 4% cost more than US $50. There were noteworthy differences in payment according to women's residence. Rural women were more likely than urban women not to pay for their abortions and tended to pay less when they were not free. Abortions in the Central and East regions were more likely than in other regions to be free. As education rose, so did the amount women paid for abortions.

Thirteen percent of women with abortions since January 1994 reported that they received no anesthesia in association with their most recent abortion (Table 5.11). The likelihood of receiving anesthesia appears to have remained unchanged in recent years. Women having miniabortions were about twice as likely as those having conventional abortions not to have had anesthesia. Older women and urban women were less likely than others not to receive anesthesia. Women in the East region were the most likely to be anesthetized (91%), while women in the Central region were the least likely (77%).

CHAPTER VI

INFERTILITY

There can be little doubt that the typical desired family size has declined to very low levels and that abortion rates remain high. However, there has been some concern expressed in recent years that infertility may be playing an increasing role in the unprecedentedly low levels of fertility now in effect in Ukraine and other countries in the region. There are several factors that have suggested to researchers that there has been a growing inability among the population to have as many children as they would like. Among these factors are the increasing spread of sexually transmitted infections, high levels of chronic alcohol abuse (especially in males), and the high incidence of repeat abortions. All of these factors can potentially lead to a reduction in the ability to become pregnant or bear a child. There have also been anecdotal reports of increases in the numbers of women/couples seeking infertility treatment. However, to our knowledge, no definitive research has been conducted to determine the extent to which infertility has been suppressing rates of childbearing or to estimate the numbers of couples who are being affected by infertility.

The 1999 URHS included a module designed to collect information from respondents about their difficulties they have experienced in having children and any treatment they might have undergone in response to difficulties becoming pregnant or bearing a child. Although the survey data does not allow a thorough analysis of the extent and impact of infertility in Ukraine, it does provide the ability to examine certain aspects of the infertility situation, such as the proportion of couples who report problems becoming pregnant and the probability that couples receive treatments of various types.

Prevalence of infertility

Table 6.1 presents the proportion, among women who had ever tried to become pregnant, who said they had experienced problems becoming pregnant in the last 10 years, according to how long the problem lasted. Overall, almost one of every six respondents (16%) reported ever having such a problem. When the definition of an infertility problem is narrowed to longer durations, we still find that 14% had a problem lasting at least one year, 12% lasting at least two years and 7% had a problem lasting at least five years, seemingly relatively large percentages. The percentages reporting difficulty becoming pregnant were slightly higher than overall in urban areas and among the least well educated. Problems were less common in the West region.

Treatment

Overall, just over half of women who reported having difficulty becoming pregnant in the previous 10 years (52%) sought treatment for the problem (Table 6.2). In about two-thirds of those cases where treatment was sought, only the woman sought treatment. The proportion seeking treatment tended to increase with age, education of the respondent, and the length of the problem. The likelihood that both partners would seek treatment increased sharply with respondent's education.

The initial source of treatment for infertility problems overwhelmingly tended to be women's consultation clinics (72%) (Tale 6.3). The remaining 28% sought treatment at an assortment of types of facilities, including 6% who went to private clinics or offices. Of those women who were treated,

29% went to more than one place. The secondary sources also consisted of a wide array of types of places, including 7% private clinics or offices. The best educated, the oldest, and urban women were the most likely to go to more than one type of facility and to utilize a private second source.

A broad assortment of infertility treatments were used by survey respondents or their partners, with the most common being the prescription of anti-inflammatory drugs, reported by 48% of such women (Table 6.4). Other treatments commonly mentioned were: hormones (24%), physiotherapy (19%), treatments for blockage of the Fallopian tubes (16%), and relaxation/spa therapy (15%). Less commonly used were more technologically advanced and more costly treatments requiring greater intervention, such as: laser therapy (5%), laparoscopy (5%), and in vitro fertilization (IVF) (2%). Every treatment listed, except for relaxation therapy was more commonly used by urban women than rural women and by the best educated than less well educated women. The differences are especially large for such treatments as IVF and laser therapy. Use of physiotherapy and relaxation therapy increased sharply with the age of the respondent.

About half of the women receiving treatment eventually became pregnant (Table 6.5). Forty percent had a live birth. In spite of the different types and places of treatment, there were only small, and statistically insignificant, differences in the likelihood of becoming pregnant or having a live birth by age, residence, education, and the duration of the problem. It is difficult to interpret this result. It could mean that many of the infertility problems tend to disappear themselves or are alleviated by relatively little intervention. It also may indicate that modern, more expensive, technologically advanced treatments are not yet in widespread enough use to have affected rates of treatment success.

CHAPTER VII

CONTRACEPTION

One of the principal reasons for carrying out the 1999 Ukraine Reproductive Health Survey was to perform an in-depth examination of contraceptive knowledge, attitudes, and practices among Ukrainian women. Prior to this survey, relatively little national systematic information existed on most aspects of contraceptive use in Ukraine (Vovk, 1997). Until recently, the conventional wisdom had been that the prevalence of use of modern contraception in eastern Europe and the former Soviet Union was quite low, leading to high levels of unintended pregnancy and induced abortion there. Recent surveys in other countries in the region, however, have shown that overall contraceptive use, as well as the use of effective modern contraceptive methods, is often very widespread, despite high rates of induced abortion. Thus, it was not surprising to find in the URHS that the use of family planning methods in Ukraine has reached a very high level. This survey collected information on a broad array of topics related to contraception, including knowledge and use of contraceptive methods, source of methods, contraceptive failure and discontinuation, side effects, and reasons for nonuse of contraception, among others. Virtually no respondents refused to provide information on any of the topics related to contraception about which they were asked.

Knowledge and ever use of contraceptive methods

In general, knowledge of the most readily available methods was widespread. Table 7.1 shows that virtually all women knew at least one modern contraceptive method (99.6%). Nearly all respondents said that they had heard of condoms (99% knowledge) and the IUD (96%), followed by oral contraceptives (90%). A majority of respondents also were familiar with female sterilization (67%), spermicides (60%), and the diaphragm (58%). The only modern method asked about for which knowledge remained very low was contraceptive implants, which remain unavailable to most Ukrainians, known by only 18% of respondents. Among non-supplied methods, both periodic abstinence and withdrawal were known by between 80% and 90% of women.

Knowledge of every method was higher in urban than in rural areas, but, for most methods these differences were relatively small, the differences being greatest for sterilization (female and male), spermicides, diaphragms, and implants. Not surprisingly, most contraceptive methods tended to be much more widely known by women currently or previously in union than those never in union. For most methods, knowledge rose with age up to ages 25-29 and remained relatively constant from 25-29 to 40-44 (Table 7.2). However, all age groups and education level groups had at least 97% knowledge of condoms. With the exception of condoms, knowledge increased sharply with educational attainment for every method asked about.

Knowledge of where to obtain supplied contraceptive methods tended to be almost as high as knowledge of methods, indicating that most women who had heard of a method also reported that they knew where they could obtain that method. Knowledge of method source ranged from 97% for condoms to 13% for implants. Differentials paralleled those for knowledge of methods: higher in urban women, better educated women, and women ever in union.

Overall, 74% of all respondents and 87% of those currently in union reported ever using any contraceptive method (Table 7.4). The figures for modern methods were 60% and 69%,

respectively. The methods most likely to have ever been used were withdrawal (47%), condoms (44%), periodic abstinence (38%), and the IUD (30%). With the exception of oral contraceptives (14%), all other methods had been practiced by very few women. Except for withdrawal, all other widely used methods were more likely to have been used by urban than by rural women. In general, there was very little difference between currently in union and previously in union women in regard to ever use. Ever use increased substantially with educational attainment, except for some rarely used methods.

Current Contraceptive Prevalence

About two-thirds (68%) of women in registered or unregistered marriages were currently using contraceptive methods at the time of interview (Figure 7.1 and Table 7.5). In addition, more women/couples were employing modern methods of contraception than traditional methods (periodic abstinence and withdrawal), though the difference was not great (38% and 30%, respectively). It should be noted that users of methods considered to be of very poor or no effectiveness, particularly douching and folk methods, were not considered to be users of contraception in these tabulations. Including such women would have raised the contraceptive prevalence rate by approximately 3 percentage points. IUDs (used by 19% of women in union) and condoms (14%) accounted for the vast majority of modern method use in Ukraine, with oral contraceptives (OCs) (3%) a distant third. Withdrawal (at 20%, the most widely practiced method overall) and periodic abstinence, i.e., rhythm, calendar, and related methods (10%), were also widely used. Only about 1% of women had been contraceptively sterilized, despite the fact that most respondents wanted to have no more children.

Contraceptive prevalence was highest between ages 25-29 and 35-39, at just over 70%. Prevalence was by far the lowest at ages 15-19 (47%). In the youngest cohort, most modern contraceptors were using condoms. At the older ages, IUDs, withdrawal, and periodic abstinence were the most commonly used methods. Overall contraceptive prevalence was only 34% among women with no living children, another indication that most couples still want to have a child soon after marriage (Figure 7.2 and Table 7.6). Prevalence peaked at 75% among those with two living children, before falling back to 63% for those with three or more living children. Unlike most other contraceptive methods, use of condoms and oral contraceptives fell steadily as the number of children increased. Use of the IUD was rare among women with no children. As expected, contraceptive sterilization was very rare except among women with at least two children. Even among that group only 3% had been sterilized.

The greatest differences in contraceptive use between urban and rural areas were not so much in prevalence (69% vs. 63%, respectively), but in the types of methods selected (Table 7.7). In urban areas, 42% of couples were using a modern method, while 27% were using a traditional method.. In rural areas, however, this was almost reversed; use of traditional methods exceeded modern methods, 36% to 27%. Condom and OC use was much less prevalent in rural areas than in urban areas, while the reverse was true for withdrawal. Table 7.7 also shows prevalence figures for the Donetsk and Odessa Oblasts, the two oversampled oblasts in the URHS. Contraceptive prevalence there was 65% and 72%, respectively. Most noteworthy, however, is that women in both oblasts relied more heavily on modern methods (45% and 47%) than other Ukrainian women, even those in urban areas. Table 7.8 reveals that, despite other reproductive differences that have been noted between Ukraine's regions, there is almost no variation in contraceptive prevalence by region. There

is however, a correlation with the types of method employed. The western region relies much more heavily than others on traditional contraception (42% traditional and 25% modern). In all other regions the figures were more or less reversed. Most of the traditional use in the West is withdrawal. The Central and East regions are areas of particularly high IUD use.

Contraceptive use among women in union was also strongly correlated with educational attainment (Table 7.9). Among the relatively small number of women who had not completed secondary school, only about 57% were using contraception, less than the prevalence among better educated women (66% for those who completed secondary school and 76% for those who received any post-secondary education . The prevalence of condom, oral contraceptive, and periodic abstinence use, showed great proportional increase with educational attainment. Reliance on withdrawal decreased somewhat with increasing education.

Table 7.10 shows current contraceptive use according to union status. Thirty-five percent of women previously in union and 22% of those never in union were using contraception. The majority of users never in union, were relying on condoms.

Recent trends in contraceptive prevalence

Table 7.11 and Figure 7.3 show the trend in contraceptive prevalence in Ukraine from the beginning of 1994 to the date of the survey, based on data from the URHS contraceptive calendar. In the calendar, women reported, to the best of their recollection, their month-by-month contraceptive history for the previous five years. Because the survey questionnaire included no marriage or sexual activity history, these calculations include all interviewed women, rather than just women in union or sexually active women. Overall prevalence looks to have risen steadily among 15 to 39 year-old women in Ukraine during that time period. In just over five years prevalence rose by about 7 percentage points, more than 1 percentage point per year. Recent trends in contraceptive prevalence have been similar in urban and rural areas. Very notably, during this time there were greater increases in the use of modern contraception (5 percentage points) than in the use of traditional methods (2 percentage points).

Source of contraceptive methods

Percentage distributions of sources of oral contraceptives (OCs), IUDs and condoms (the most widely used supplied methods) are displayed in Table 7.12. Women's consultation centers and pharmacies were overwhelmingly the leading sources of OCs for respondents, supplying about three of every four users. Women's consultation centers were the predominant source of IUDs, accounting for two-thirds of those currently used. Most of the remainder were supplied by hospitals. Pharmacies supplied slightly over half of condom users. Substantial numbers were also provided by women consultation centers and drug kiosks. Major sources of supply for these methods were quite similar for urban and rural women.

Information collected in the survey about the cost of contraceptive methods proved to be problematic because of women's difficulty in remembering the amount they paid as well as substantial changes in the costs of goods and services and in the value of Ukrainian currency. However, it is informative to examine the types of payments women or couples made for their current contraceptive method. Table 7.13 shows that among OC users, 82% paid for their pills. A slightly higher percentage of

IUD users received their supplies without paying–about one-fourth said they did not pay. About three-fourths of condom users said they paid for their supplies, but an additional 11% did not know (probably because their partner obtained their condoms). There were very small differences between urban and rural areas with regard to whether respondents paid for their contraceptive method.

Reasons for not using contraception

Among survey respondents who were not currently using contraception, two-thirds cited lack of sexual activity, an inability or difficulty in becoming pregnant (subfecundity), current pregnancy, or a desire to become pregnant, as their primary reason for non-use (Table 7.14). These women are not likely to be targeted as potential users of contraception in a family planning program. There was a broad assortment of reasons for non-use given by the remaining 34% of non-users, many of which could be addressed by reproductive health interventions. The most commonly given reasons were "occasional sex only" (9%) and "don't know" (8%). Fear of health consequences or side effects (3%), partner objections (3%), and cost/access issues (3%), were the next most commonly cited reasons. It is important to note that certain reasons, particularly a preference for abortion and religion, were almost never mentioned. Not surprisingly, there were large differences in reasons for non-use according to marital/union status. Among those not currently in union, lack of sexual activity and infrequent sexual activity were, of course, the most important factors. Among those currently in union, factors such as subfecundity, pregnancy, wanting to become pregnant, and fear of side effects were more often cited than among other respondents.

Unmet need for contraception

Table 7.15 presents estimates of the percentage of women in need of family planning services according to two definitions. By the first definition (the conventional definition), women who are sexually active, not pregnant, able to become pregnant, do not want to become pregnant, and are not using any contraceptive method are considered to have unmet need for contraception. By this definition, unmet need was 15%, very high compared with the levels in most other developed countries. The second definition additionally includes users of periodic abstinence and withdrawal (methods with typically low use-effectiveness) as having unmet need. This definition more than doubles the proportion with unmet need to 37%. This is an extremely high level of unmet need, fitting well with Ukraine's high abortion rate. Women with no living children were substantially less likely to be in need than those with children by both definitions I and II. Respondents who had completed secondary school but had no post-secondary education were more likely to have unmet need than others were. There were virtually no differences across regions of the country. Rural women were more likely to have unmet need than urban women. It should be kept in mind, however, that these indicators only take into account whether people are using a method, but do not include such factors as consistency of use and method effectiveness.

Preference for other methods/Problems with current method

Current users of contraception were asked if they would prefer to use a method of pregnancy prevention other than the one they were currently using. A relatively low 25% of women said they preferred a different method, but the percentages varied considerably according to the method currently used (Table 7.16). The two methods that women were the most likely to want to switch from were withdrawal (37%) and condoms (30%), both male controlled methods with relatively low

use-effectiveness. Users of the IUD and tubal ligation were the most likely to be satisfied with their present method, with only 10% and 11%, respectively, preferring a different method. The IUD was also by far the method most commonly mentioned as being the one women preferred to use, among women using a different method (mentioned by about 40%). Oral contraceptives were the only other method frequently mentioned by respondents as one they would like to adopt.

Table 7.17 shows that about one-half of women who reported that they preferred to be using a different method, said that the major reason for their failure to use that method was either cost (27%) or fear of health consequences or side affects associated with the method (20%). The only other reasons frequently cited were that the physician would not prescribe their preferred method (15%) and that she did not know enough about the method or how to obtain it (14%). The most notable difference between urban and rural areas was that cost was much more likely to be a major factor in rural areas than in urban areas. It is noteworthy that all four of the most common reasons given for not using preferred methods all could be addressed by interventions designed to improve contraceptive use.

Overall, about 80% of contraceptive users said they were having no major problems or concerns with their current method (Table 7.18). The proportion with no concerns ranged from 73% among those using a traditional method to 84% for condom users, 85% for IUD users, and 87% for sterilized women. The problem/concern most often mentioned, especially for traditional methods and condoms, was low effectiveness of the method. Among women using an IUD or who had been sterilized, health concerns were the leading concern. Among users of OCs, side effects were the predominant concern.

Contraceptive failure and discontinuation

Data from the questionnaire's contraceptive/pregnancy calendar were used to calculate rates of contraceptive failure (the probability of becoming pregnant while using a particular method) and discontinuation (the probability of stopping use of a particular method for any reason) for the most widely used methods. Table 7.19 presents rates of failure after one, two, and three years for all methods combined and for five specific methods. Overall about 9% of contraceptive users became pregnant while using a method within one year of beginning use. After three years this rose to 19%. Of course, there were substantial differences between methods. There were quite small differences in failure rates between urban and rural areas.

The failure rate for the IUD, based on calendar data, was 1.4% for the first year, which is in line with typical rates (Figure 7.4). Failure rates after three years rose to 3.5%. Urban-rural differences were small. The failure rate for oral contraceptives was 5.9% for the first year and 13.2% for three years, somewhat higher than the rates typically seen (Hatcher et al., 1998). Condom failure was 7.1% for one year and 18.7% for three years. The highest failure rates for widely used methods were found for periodic abstinence and withdrawal. For periodic abstinence 15.6% of users became pregnant in the first year; for withdrawal the rate was 11.7%. Three-year rates for these two methods was almost 30%. There were no consistent differences between urban and rural areas in contraceptive failure or use-effectiveness, as the inverse is known.

Anecdotal reports have suggested that there is a considerable amount of method switching, as well as frequent starting and stopping of contraception in the much of the former Soviet Union. The

URHS data support this belief. In general, contraceptive discontinuation rates were very high across methods. For all methods combined, 29% of contraceptive use segments continued for no more than one year (Table 7.20). After three years, about half of women had discontinued use. Of the five methods most widely used, all except the IUD exhibited extremely high rates of discontinuation, from 29% (withdrawal) to 54% (OCs) in the first year and from 53% (withdrawal) to 74% (OCs) after three years (Figure 7.4). Only 6% of IUD segments ended within one year.

Table 7.21 displays some reason-specific one year discontinuation rates for the five leading methods of contraception in Ukraine. For oral contraceptive users there were a wide variety of reasons for discontinuation, including: to give the body a rest (15% of segments terminating in less than one year), side effects (9%), health concerns (8%), cost/supply problems (7%), and physician's decision (7%). Especially of concern is the high rate of discontinuation to "give the body a rest", which has no medical justification. Side effects were somewhat of a problem for IUD users, causing 10% discontinuation in the first year. Concerns about health were responsible for 2% discontinuation. Condoms tended to be discontinued for a more effective method (7%), because of cost (4%), or inconvenience of the method (3%). The major reason for discontinuing periodic abstinence and withdrawal was to use a more reliable method.

Table 7.22 shows percentage distributions of reasons for discontinuing the five most widely used methods. It should be kept in mind that these distributions are not the same as discontinuation rates and that percentages should only be compared within methods, not between methods. Oral contraceptive users cited a wide assortment of reasons for stopping. The most commonly given reasons were "giving her body a rest", side effects, health concerns, pregnancy (i.e., failure), and desire to get pregnant. Physician's decision and cost/supply issues were also mentioned relatively often. Among IUD users the principal reasons for discontinuation were to give the body a rest, physician's decision/recommendation, health concerns, and pregnancy while using. Condom use was discontinued for a broad assortment of reasons, led by pregnancy and want of a more reliable method. Periodic abstinence and withdrawal use tended to be terminated because of pregnancy (over 40%), desire for a more reliable method, or inconvenience of the method. In the case of withdrawal, partner's objections were commonly cited .

Opinions about fertility control methods

Respondents were asked to rate a number of birth prevention methods with regard to safety and health effects, effectiveness, and cost, as well as to give each method an overall rating. For each characteristic, women rated each method between 1 (extremely negative) and 10 (extremely positive). Table 7.23 and Figure 7.5 show the percentages of women who gave very low ratings (3 or less) for each of seven methods. (Not included in these tabulations are women who did not have an opinion about particular characteristics for a given method. For some methods, particularly injectables and tubal ligation, the proportions of women with no opinion were very high.)

Survey findings regarding feelings about abortion run counter to the opinion sometimes expressed that women in this region of the world tend to prefer abortion to contraception. Probably the most noteworthy result is the nearly universally negative overall opinions held by respondents about both conventional induced abortion (96%) and miniabortion (95%). Opinions about abortion were equally negative regardless of whether women had ever had an abortion (top panel, Table 7.23). Despite the fact that abortion was by far the most poorly regarded method of birth prevention, every

method asked about was rated negatively overall by at least 40% of respondents who had an opinion about the method. Condoms and the IUD were the only methods not viewed very negatively by a majority of respondents, 41% and 49% negative, respectively. After conventional abortion and miniabortion, female sterilization (81%) and injectables (73%), methods that were not widely used in Ukraine, were the methods most often viewed negatively. Except for abortion, users of a particular method were far less likely than non-users to view that method negatively. IUD users (3%) and oral contraceptive users (8%) were particularly unlikely to view their method negatively.

With regard to safety and health consequences, induced abortion was again viewed the most negatively (91% for conventional abortion and 88% for miniabortion). Slightly over one-half of respondents considered female sterilization (57%) and injectables (53%) to be unsafe. Condoms (9% negative) were considered the safest method by a wide margin, followed by the IUD (27%). As with overall opinions, users of a particular method were less likely than others to consider that method unsafe.

None of the methods about which women were asked in the survey were widely considered to be of low effectiveness. However, even the methods known to be of extremely high reliability, such as sterilization and the IUD were considered by at least 7% of respondents to be of low effectiveness. Interestingly, sterilized women were no less likely than others to believe that sterilization was of low effectiveness.

Only condoms were viewed by more than a small proportion of women (58%) as very costly. Because condoms play such an important role in preventing the spread of HIV/AIDS and other STIs, the fact that so much of the population views them as very costly is essential information for policy makers and the reproductive health community. The IUD was viewed as expensive by 15% of women. Cost was the only aspect of contraception which was generally viewed more negatively by users than by non-users. This probably reflects greater awareness of the actual costs of obtaining methods among those women who have actually used particular methods.

Use of non-supplied methods

Because non-supplied methods of contraception tend to have higher probabilities of failure than modern, supplied methods, the URHS examined the reasons that women and couples chose methods such as periodic abstinence and withdrawal. The survey asked every respondent who was currently using any non-supplied method (mainly periodic abstinence or withdrawal) whether a number of factors were at least "somewhat important" in their method selection. These factors included: health/side effects of supplied methods; the naturalness of the method; partner preference; lack of knowledge/ information about other methods; cost of other methods; difficulty in obtaining other methods; and religious beliefs. All but religion were cited by a substantial proportion (i.e., at least 47% or more) of users of non-supplied methods as being at least "somewhat important" in influencing their method choice (Table 7.24). The possible health and side effects of supplied methods (81%) and the naturalness of non-supplied methods (82%) were by far the most important factors cited in choosing withdrawal and periodic abstinence. About two of every three women said that the cost of other methods played an important role in method selection, about the same as the proportion mentioning their partner's preferences. Several factors that family planning/reproductive health programs could affect seem to play a significant role in the decision-making process. In addition to the cost of other methods, difficulty in obtaining other methods and a lack of knowledge

about other methods influenced the choices of 52% and 47%, respectively, of users of less effective, non-supplied methods. Rural women were slightly more likely to cite the cost and availability of other methods as a reason.

Table 7.25 reveals non-supplied method users' opinions about the effectiveness of their current method relative to "methods received from a doctor or pharmacy, like the IUD or pills". Only about one of every five such women were aware that methods such as the IUD prevented pregnancy more effectively than the method they were using. Another one-third felt that their current method was actually more effective than modern methods. Twelve percent admitted that they did not know the relative effectiveness of the methods.

By publicizing the relative effectiveness of various types of contraception, disseminating accurate information on health effects, and improving knowledge of and access to other methods, reproductive health programs in Ukraine can contribute to increased use of highly effective methods and, hence, reduced reliance on induced abortion to prevent unwanted births.

IUD use

The IUD has been the most popular form of modern contraception in much of eastern Europe and the former Soviet Union for many years. However, little information has been collected on a national basis in Ukraine on side effects or other aspects of IUD provision and use. The URHS included a series of questions for respondents who had an IUD inserted since the beginning of 1994, relating to the timing of insertions, information given by the IUD provider, and problems encountered related to the IUD. Tables 7.26 and 7.27 provide some findings from these questions.

Most IUD insertions (71%) took place neither following a delivery nor an abortion (top panel, Table 7.26). There were, however, substantial numbers of insertions after induced abortions (23%). Eighty-five percent of recent Ukrainian IUD users reported that their provider told them how long their IUD could be left in place (Table 7.26, bottom panel). About one in ten IUD users were told that the device could be left in place for six or more years, about half reported being told that it could be left in place for 4-5 years, and 23% said they were told that the IUD could only be left in place for less than four years. Unfortunately, because we do not have information on the type of IUD that women used (this question was not asked because women were unlikely to know the type) we cannot assess the adequacy of these recommendations, since there are considerable differences between different types of IUDs as to how long they remain effective. Six percent of IUD users reported that their provider did not give them any information regarding how long the device could be left in place and another 9% could not remember whether their physician told them anything about how long her IUD should remain.

About three of every ten women with an IUD inserted since January 1994 reported that they experienced physical problems associated with the device (Table 7.27). The proportion was very similar in urban and rural areas of Ukraine. About half of those reporting problems mentioned either heavy bleeding during menstrual periods or bleeding or spotting between periods. Inflammation/discharge/infection was the only other specific problem frequently mentioned.

Oral contraceptive use

The questionnaire included a module on oral contraceptive use for respondents who reported use segments of OC use beginning since January 1994. This module was similar to the one used for IUDs, including questions on information given by providers, problems related to pill use, and related topics. Although oral contraceptives are not widely used in Ukraine currently, they seem to be growing in popularity and are being promoted as a safe and effective form of pregnancy prevention that is appropriate for many women in the population.

Despite the relatively small number of current OC users interviewed (210), there were a considerable number of brands of OCs being used, with 23 different brands mentioned (data not shown). The most widely used brands among current users were Tri-Regol (26%), Regividon (22%), Marvelon (19%), and Triqvilar (17%). Twelve percent of OC users reported that they were using Postinor, a very high dose pill also used as a morning-after pill.

Slightly fewer than one-half (43%) of recent OC users in the URHS reported that their physician did not tell them how long they could continue to take OCs (Table 7.28). Unlike the IUD, however, this is not of great concern, since most women can take OCs for many years with no ill effects. Fourteen percent reported that their physician told them they should only take pills for less than two years. As was shown previously, many physicians continue to tell patients that they should discontinue OCs after various lengths of time to "give the body a rest", a recommendation that is not supported by medical evidence. About one in four women were told they could take OCs as long as they wanted. Rural women were less likely to be told this and more likely to be told they should take OCs only for a short period of time.

Forty-one percent of recent and current OC users reported having had physical problems related to their use of this contraceptive method (Table 7.29). Nausea and weight gain/bloating were the most commonly reported problems, each reported by 8% of users. Additionally, 6% reported headaches and 5% cited bleeding between menstrual periods.

Contraceptive sterilization

Despite the fact that most women want to have no more children and that most couples desire no more children long before reaching their potentially fertile years end, contraceptive sterilization is rarely employed as a method of pregnancy prevention in Ukraine. The URHS found that only 2% of married women of reproductive age with two or more children had been sterilized and that virtually no men had undergone a vasectomy. This low reliance on sterilization seems to be a phenomenon observable throughout the region. Recent surveys in Russia, the Czech Republic, and Romania, for instance, also revealed similarly low prevalence of sterilization (Czech Statistical Office et al. 1995, Romanian Ministry of Health 1995, VCIOM 1998), as does anecdotal information from much of eastern Europe and the former Soviet Union. A number of factors probably contribute to the low prevalence of sterilization, one of which is legislative. Except for medical reasons, it is only legally permissible for women with three or more children or, if a woman is over 30 years of age, with two children. This law, however, actually represents a liberalization of sterilization practices. Until after the break-up of the Soviet Union, only women with a medical condition contraindicating pregnancy or childbirth could legally be sterilized.

Regardless of the regulations on when sterilizations are permitted, the survey results show that few women claim to be interested in tubal ligation. Overall, among fecund respondents who wanted to have no more children, only 7% expressed interest in sterilization (Table 7.30). An additional 5% said they were not sure if they would be interested, leaving an overwhelming 88% who were not interested. There were a few noteworthy differentials in sterilization interest according to women's characteristics. Respondents in the West were the least likely to be interested. Women with the largest families and those with the highest levels of education, were more likely to express interest than others. Non-users of contraception were less likely than users to be interested, but there was little difference between users of various methods of contraception.

When asked the reason for not being interested in sterilization, the factor most commonly given (respondents could only give one reason) was that women simply "had not thought about it", cited by 34% of respondents (Table 7.31). This indicates that sterilization is not even a contraceptive option that many women ever consider. The next most common reason was a fear of health risks associated with sterilization (25%). Other reasons that were given with some frequency were lack of information about sterilization (10%), fear of operation (9%), and might eventually want another child (8%). Women rarely mentioned religion, cost of the procedure, or partner's objections as major factors.

Although, at first appearance, increasing the incidence of contraceptive sterilization seems an obvious way to decrease levels of unintended pregnancy and induced abortion and, hence, reduce maternal morbidity and mortality, there are a number of major obstacles to overcome before such a change can actually occur. Legal barriers would need to be removed. There is currently not adequate equipment available to provide sterilization to large numbers of women (or men). Maybe, most importantly, the procedures are not currently ones that are even considered to be acceptable contraceptive options for all but a small minority of Ukrainians. Any movement directed at trying to increase the use of sterilization as a family planning method will have to address all of these problems.

CHAPTER VIII

CONTRACEPTIVE COUNSELING

An important component of the Ukraine Women's Reproductive Health Initiative has been the development and implementation of interventions intended to improve health care workers' counseling regarding contraceptive services. The URHS questionnaire included a series of questions designed to determine the kinds of interaction women in the survey sites typically have with family planning providers regarding issues such as whether to use contraception, the information given to women about contraceptive methods, method selection, and satisfaction with the services received. It also examined various aspects of communications between partners regarding such issues as contraceptive use and abortion.

Post-abortion/Post-partum counseling

The top panel of Table 8.1 presents results regarding post-abortion contraceptive counseling. Only thirty-nine percent of women who had an induced abortion since the beginning of 1994 said that a health professional had spoken with them about ways of preventing an unintended pregnancy following their most recent abortion. The proportion was virtually identical in urban and rural areas. The likelihood that a woman would be referred for contraceptive services or counseling was very low, only 7%. Only 16% of women undergoing an induced abortion left the facility where it was performed with a contraceptive method or a prescription for one.

The bottom panel of Table 8.1 shows information on contraceptive counseling following recent deliveries. Only one-fourth of respondents with recent live births reported that a doctor or nurse talked to them (or offered to talk to them) about contraception subsequent to their delivery, a considerably lower proportion than after abortions. The proportion who were referred for counseling or services was only 5%. Only 4% actually left the delivery facility with a contraceptive method or a prescription for one.

These figures show a clear need for improved and expanded post-abortion and post-delivery counseling, referrals, and provision of contraceptive supplies.

Content of Counseling/Method selection

Although a survey like the URHS cannot capture all the important interactions between family planning providers and clients, women were asked a number of questions to try to determine the extent to which health care workers provided some basic information and services. Table 8.2 describes information from women who had used oral contraceptives, the IUD, or injectable contraceptives since January of 1994, and refers to the last time they started using any of these methods.

High quality contraceptive counseling should stress that women/couples are able ultimately to select their own contraceptive method, rather than the provider making the decision unilaterally. The provider should discuss the various available methods, giving the client as much useful information as possible, in order that she/they can make a well informed decision. Each respondent first

reported whether her family planning provider had discussed the various family planning options available to her. Just over half (54%) of women who recently started using a provider supplied method responded positively (Table 8.2). Differences according to most characteristics in the percentages of women with whom providers discussed contraceptive options tended to be small. Percentages were lowest for the youngest women and highest for the oldest. They also increased with education and were higher for IUD users than pill users.

Following method selection, the provider should give information on how to use the method, possible side effects associated with the method, and when the client should return for follow-up. Table 8.3 (first column) shows that about two-thirds of recent IUD, pill, and injection users recalled their provider giving information on potential side effects and what to do about them. Of those respondents who received any contraceptive counseling, large majorities said that they: understood most or all of the information provided on the method selected (87%); were told when to return for follow-up (82%); and were given a pelvic exam during their visit (87%). IUD users were considerably more likely than pill users to have received more complete counseling. Among pill users, only 50% had possible side effects explained to them, 52% were told when to return for follow-up, and 63% received a pelvic exam.

Partner involvement in reproductive health decisions

It is preferable that both partners be involved in such decisions as whether to use contraception and what type of method to use. Table 8.4 reveals that 82% of married respondents had had discussions about family planning with their partner. Although differentials in this table are not great, the percentages who had discussions were lowest in the South and West, in rural areas, among the youngest and oldest respondents, and among the least well educated. A large majority of respondents (82%) said that the decision regarding what contraceptive method to use should be made jointly by the man and woman. Only 13% felt this decision should be up to the woman alone.

In the vast majority of instances (97%), women reported that their partner was aware of their most recent abortion. Almost 9 of every 10 women who opted for an abortion discussed with her partner whether she should have the procedure (Table 8.5). Although the difference was not significant, this percentage was slightly lower in the West (86%) and among the oldest cohort of women (86%).

CHAPTER IX

INFORMATION, EDUCATION, AND COMMUNICATION (IEC)

The 1999 URHS included a series of questions regarding respondents' mass media habits, preferences, and attitudes. This included information on television viewing, radio listening, and newspaper reading. In addition, the survey assessed exposure to reproductive health information on television and in print in the six months prior to the interview, as well as opinions about the acceptability of placing family planning information on television and radio. These findings have programmatic implications for the development and placement of IEC messages in future interventions to improve reproductive health and the utilization of services.

Television viewing habits

Eighty percent of respondents said that they watch television virtually every day (Table 9.1). On the other hand, only about 8% of respondents said they generally watched television less than once per week. The greatest difference in viewing frequency appears to be between urban and rural women, 83% and 73% respectively watching television daily. Women 35-44 years were slightly less likely to be infrequent viewers. There was no consistent relationship apparent between education and television viewing. Such widespread overall viewership indicates that television is a promising means for reaching women with health and family planning information, even though commercial time is expensive.

The most popular types of television programs were soap operas, frequently watched by 60% of women (Table 9.2). Soap operas were most popular in rural areas (66%), in the West region (67%) and among women who did not complete secondary school (67%). Other types of television shows that were popular included entertainment program (watched by 55%), news (54%) and music programs (52%), the only other types of programs regularly watched by a majority of respondents. Just over one-third of respondents regularly watched women's programs, while 27% watched health programs. Few respondents said that they regularly watched religious programs, business programs, or sports. It was not surprising to find that entertainment and music programs were most popular among the youngest cohort of women, while women at older ages were about twice as likely as younger respondents to watch news and political programs. Women's programs and health programs, which are the most typical place to air health information messages, were most popular among women over 25 years old, who lived in urban areas, and had higher education. However, to reach the large proportions of women who do not watch those programs, especially the less educated and younger women, it might be beneficial to place information on soap operas and music and entertainment programs

The heaviest viewing times for television were in the evening, with 67% of viewers reporting that they watched television between 6 p.m. and 10 p.m. (Table 9.3). The only other time of high viewership was after 10 p.m. (35%). Television viewing after 6 p.m. was lower among the youngest respondents and those with incomplete secondary education, although still much heavier than at other times of the day even for those groups. About 11% of respondents watched television between noon and 6 PM. The youngest respondents, under 24 years old, and those who did not complete secondary school were the most likely to watch television during the morning or afternoon. About 20% of these women watched TV between noon and 6PM.. At this time of day,

health messages might be included in entertainment or music program, which are most popular among younger, less educated women.

Radio listening habits

Half of all respondents said that they generally listened to the radio daily (Table 9.4). Another 8% listened to the radio at least once a week. About four of every ten respondents said that they rarely or never listen to the radio. Urban women, 15-24 year-olds, and women from the East region, and those with more than secondary education tend to listen to the radio more often than other groups.

Most radio listeners, listened to music and news programs (50% and 34%, respectively, of the 60% who listened) (Table 9.5). About one in every ten women reported listening to women's programs and health programs. Almost about one-half as many women listened to health and women programs in the South region as elsewhere. Both health and women's programs were most popular among the best educated women and those over 35-44 years old and least popular among the youngest and the least well educated.

Radio listening times were much less concentrated than television watching times, as might have been expected (Table 9.6). The largest percentages of radio listeners said they had no regular listening times (26% of all women) or listen in the morning (25%). Respondents were much less likely to listen to radio regularly in the afternoon (16%) or in the evening (12%) than in the morning. Only about 4% of women said they listened to the radio after 10PM.

Newspaper readership

URHS respondents could be split into three roughly equal-sized groups in regard to frequency of reading newspapers. Just under one-third of all women said they almost never read newspapers, another one-third read newspapers at least three times per week, and a slightly larger group (38%) read them occasionally (twice per week or less)(Table 9.7). Daily newspaper reading, 18% overall, was most common in the North and Central regions of Ukraine, where respectively 31% and 21% of the women said they read a newspaper daily. compared with about half as many in South and West regions (13% and 14%, respectively). Frequency of newspaper reading increased with the age and especially with the level of education of respondents. There was little difference, however, between urban and rural women.

The national newspaper that was most frequently read included *Facti* (Facts), read by 27% of women, most commonly in urban areas, in the North region, and among the most educated women (Table 9.8). In second place was *Telenedelya (Television Week),* read by 15% of women and highest in urban areas, the East and South regions, and among the youngest women. Seventeen percent of the respondents said they read local newspapers. These papers were most frequently read by women over 35 years of age, rural residents, and those with higher levels of education.

Exposure to and attitudes about health messages in the media

About one-third of women reported seeing family planning information on television (36%) and 39% recalled seeing such information in newspapers or magazines within six months of interview (Table 9.9). Exposure to such information both on TV and in print decreased with increasing age,

was higher in urban areas than in rural areas, and increased with educational attainment. It also tended to be lower in the West region than it was elsewhere. This indicates that health promotional campaigns may be more likely to reach younger people, often a key group in these types of activities, through television and appropriate print media.

Despite a minority of women recalling seeing information on family planning in the mass media, the vast majority of women felt that such information should be available through the media (Table 9.9, third column). Eighty-five percent of women, with only slight difference among subgroups, said that information on family planning should be broadcast. Women in the West (80%) and 35-44 year-old women (82%) were less likely than others to favor broadcasting such information.

Table 9.10 examines the correlation between exposure to family planning messages in the media correlated and current contraceptive use among fecund sexually active women. It shows that the use of modern contraceptive methods was more common among women who had been exposed to family planning messages in the media than among women who have not been exposed (46% vs. 37%). Use of traditional methods, though, was slightly higher among those who did not report seeing such messages. Without more information, though, it is not possible to draw conclusions about whether exposure to media messages was a cause of greater modern contraceptive use or simply a correlate.

CHAPTER X

SEXUAL EXPERIENCE

The URHS included a series of questions designed to study certain aspects of sexual behavior among survey respondents. All women were asked the month, year, and age at which they first had sexual intercourse, the length of time since they most recently had sexual intercourse, the frequency of sexual intercourse during recent months, and the number of recent and lifetime sexual partners. Since the issues of unintended pregnancy and sexually transmitted diseases among young adults have been of growing importance in eastern Europe and the former Soviet Union (as in much of the rest of the world), a set of questions regarding the initiation of sexual activity was asked of respondents between the ages of 15 and 24. These included questions on the respondent's relationship to her first sexual partner and use of contraception at first premarital intercourse, either to prevent pregnancy or prevent STDs.

It is traditional for Ukrainian women to marry and start childbearing at younger ages than in the most of western Europe and developed countries in other parts of the world. It has not been unusual for young couples to stay with their family, sharing income and responsibilities in raising children with parents and sometimes with grandparents. Sex education during the Soviet period tended to be neither comprehensive nor very informative, besides being almost inaccessible for most young women. Since premarital sex was customarily considered to be morally unacceptable (and abortion was available when pregnancy did occur), premarital childbearing was not very common. Lack of contraceptive knowledge and shame led to a very high percentage of non-marital pregnancies among teenagers resulting in abortions. Youth in rural areas, where the stigma associated with premarital pregnancy is even stronger, were more affected than others.

However, the issue of teen pregnancy was not a major concern of the Ukrainian public health establishment during the Soviet period. The economic, social, and political changes that took place in Ukraine after the fall of the Soviet Union, including the transformation of the country to a more open society with exposure to mass media and Western culture, changed many aspects of life among Ukrainians. Among the areas where changes have been occurring are sexual behavior, reproductive health, and marital and motherhood norms. Changes in the social and economic situation may be affecting the ability of women/families to support children born to unmarried teen mothers. Another cause for concern is the increase in sexually transmitted infections among the population, especially among young adults.

Sexual experience of all women

It has been hypothesized by some in the region that the dramatic declines in fertility and pregnancy rates in recent years in the former Soviet Union is attributable in large part to a decline in the sexual activity rate, rather than other more commonly mentioned factors, particularly economic and social factors leading couples to want fewer children. The URHS included several questions on the sexual experience of the respondents which helped to examine whether there might be any validity to this hypothesis. There are no comparison data from before the fertility decline, and the URHS did not collect information on trends in sexual activity, but the data available will provide some indication of whether sexual activity rates are at low levels or not.

Figure 10.1 displays the percent of 15-24 year-old respondents, by single year of age, who reported that they had ever had sexual intercourse. Relatively few females under the age of 17 reported being sexually experienced. Table 10.1 shows the proportion of respondents in each five year age cohort (except for 15-19 year-olds) who reported having sexual intercourse before selected ages. The results reveal that the proportion of women who have had sexual experience by the time they turn 16, 18 and 20 years old has increased in recent years, indicating that the age at first sex has been declining substantially. Twenty-three percent of respondents in the 20-24 year old cohort had their first sexual experience before age 16, about four times the percentage in the three oldest cohorts. The proportion of 20-24 year-olds who were sexually experienced by age 18 was 54%, also more than twice as high as for the older cohorts. The percentage of women who had intercourse by age 20 also increased, from 51% to 85%. Overall, urban women were slightly more likely than rural women to become sexually active by ages 16 or 18. The median age at first sexual intercourse (i.e., the age by which one-half of each cohort became sexually active) also reveals that sexual initiation has been becoming younger in recent years. The median age declined from 19.6 years for the 30-34 year-old cohort to 17,8 years for the 20-24 year cohort, representing a decline of almost two years in a ten year period. Figures were very similar for urban and rural Ukraine. These figures provide strong evidence that the age at which Ukrainian females have been becoming sexually active has been declining rapidly in the previous 10 years or so. The increase in sexual experience by ages 16, 18, and 20 can be seen graphically in Figure 10.2.

About three-fourths of all sexually experienced respondents reported having sexual intercourse in the previous thirty days (Table 10.2). Sixty-three percent had sexual relations in the previous week. When these tabulations are restricted to women currently in union, the proportion sexually active was 72% for the past week, 83% for the past month, and 95% for the past year. There was virtually no difference between urban and rural areas in reported sexual activity. Small differences were noted between the country's regions, with rates for the past week and month lowest in the South and highest in the Central region. Not surprisingly, there were differences according to the age of respondents. Weekly and monthly rates were highest among women between the ages of 20 and 34 years. It is assumed that the rates are slightly lower among 15-19 year-olds because a large proportion of the sexually experienced females at those ages are not currently in union. Among sexually experienced women who were never in union, who were primarily young women, 63% were sexually active in the previous 30 days.

Table 10.3 presents the percent distribution of the number of times sexually experienced respondents reported having sexual intercourse in the previous 30 days. The proportion of women in union who did not give any response or said that they did not remember, was almost one in four (24%). Of the 76% of women in union at the time of interview who responded to the question on coital frequency, four of every ten reported having intercourse at least 10 times in the previous 30 days. About one-third of that group reported having intercourse 20 or more times in the previous 30 days. About one of every three responding women in union reported having sexual relations from 3 to 9 times during the month. Ten percent of women in union said that they did not have sexual relations in the previous 30 days. The overall median for women in union was slightly over five times per month. As expected, coital frequency varied with women's ages; the proportion of women in union reporting intercourse at least 10 times in the previous 30 days declined from 38% for 15-24 year-olds to 22% for 35-44 year-olds. On the other hand, the proportion sexually inactive in the previous month varied relatively little with age, though it was slightly higher for 15-24 year-

olds and 35-44 year-olds than for 25-34 year-old women. The URHS does not provide information on trends in coital frequency.

The bottom panel of Table 10.3 examines coital frequency among sexually experienced women not in union at the time of interview. Over half of these women reported having no sexual intercourse in the previous 30 days. The sexual activity of these women was highly correlated with their age. Among the oldest cohort of women the percentage reporting no recent intercourse was almost twice as high as among the youngest women (65% vs. 39%). Based on the data showing an increase in sexual experience by age 16, 18 and 20, and the high proportion of women who said they were currently sexually active with high median coital frequency, even without the comparison to earlier years, it seems unlikely that the reported frequency of sexual intercourse is low enough to be responsible for significant declines in the pregnancy rate observed recently.

Information on the number of recent sexual partners women have had is useful in examining risks for sexually transmitted diseases as well as the analysis of sexual behavior with regard to women's health. The vast majority of sexually experienced women (92%) said that they had had no more than one sexual partner in the previous twelve months (Table 10.4). Only about 6% of women reported having multiple partners during that time. The likelihood of multiple sexual partners was highest among 15-19 year-old women (20%), never married women (27%), and residents of urban areas (7%). Women in the West region were much less likely than others (3%) to report having more than one partner in the previous 12 months. If these data are reliable, they indicate that few married Ukrainian women have more than one sexual partner over the course of a year. However, because this behavior is so stigmatized, it is not possible to say whether significant numbers of women underreport the number of partners they have had. The data also indicate that the proportion of women having large numbers of sexual partners is exceedingly small.

First sexual experience of young adults

The median age at first sexual intercourse, based on reports of whether young survey respondents had ever had sexual intercourse, was about 18.4 years. The proportion of 15-17 year-olds reporting that they had ever had intercourse was still relatively low, 18% (Table 10.5). However, many girls became sexually active at ages 18 or 19. More than half of 18-19 year-olds were sexually experienced, as were about four of every five 20-21 year-olds. The proportion sexually experienced reached its highest point at ages 22- 24, at 91 percent.

Clearly, premarital sexual intercourse has become common throughout Ukraine. About 30% of 15-19 year-old females reported having premarital intercourse, while this figure was 73% for females ages 20 to 24 years old. Altogether 60% of all 15-24 year-old respondents had had sexual intercourse before marriage. Eighty-five percent of all sexually experienced young women reported having premarital sexual intercourse. The proportion of sexually experienced young adults who had first intercourse before marriage, was inversely related to age at first intercourse, declining from 96% of 15-17 years olds to 81% of 22-24 years olds.

At ages younger than 18 years, urban females were slightly more likely then rural females to be sexually experienced, but the difference was not significant (Table 10.6). However, even this small urban-rural difference disappears after age 17. Sexually experienced urban women at all ages were

more likely than sexually experienced rural women to have had premarital intercourse.

Eighty-five percent of initial sexual experience for young women in Ukraine was premarital; only 15% of sexually experienced young women reported that their first sexual partner was their husband (Table 10.7). About equal numbers of women said that their first sexual partner was a fiance or boyfriend (each 36%). An additional 9% of women said they first had sexual relations with a friend or acquaintance. First intercourse with a boyfriend or friend tended to be more common when it took place before age 18. First intercourse was described as forced intercourse or rape by 2% of young women. Even among those who first had sexual relations after their eighteenth birthday, for only 23% was first intercourse with their husband. Rural women were far more likely than urban women to report that their first sexual experience was after marriage or with a fiance (64% vs. 46%).

Just under half of young women who first had intercourse before marriage (47%) reported that they or their partner used contraception during her first sexual experience (Table 10.8). Condoms accounted for over half of this contraception (27%), with withdrawal the only other commonly used method (13%). No other method was used by more than 2% of respondents. The predominance of condoms and withdrawal is not surprising, given that few other methods are readily accessible and do not require contact with a clinic or physician. Those females who first had premarital sex at age 18 or older were not significantly more likely than those starting at younger ages to report using contraception at first intercourse (48% vs. 45%). However, those who began sexual activity at age 18 or later were more likely than those beginning younger to report using withdrawal at their first premarital sexual experience. Females whose first sexual experience was at a younger age were slightly more likely to report using a condom at their first premarital sex. The relatively widespread use of condoms by the youngest women/couples at first premarital intercourse may indicate some success in the promotion of prevention strategies not only of unintended pregnancy, but sexual transmitted diseases as well.

Contraceptive use at first intercourse varied by residence. Overall, rural women/couples were only about two-thirds as likely as urban residents to use contraception during their first premarital intercourse (35% vs. 50%). There was an even greater difference in condom use, which was two to three times higher in urban areas than in rural areas, regardless of women's ages.

Table 10.9 displays data on premarital sexual experience and use of contraception for Eastern European countries in which similar reproductive health surveys have been conducted since 1993. Data from the USA is also shown for comparison purposes. The proportion of young women reporting premarital sexual experience in Ukraine was the third highest of the six countries, following the Czech Republic and Russia. Ukraine ranked fourth in overall contraceptive use, but had the second highest use of modern methods. All countries in the region registered contraceptive use well below that reported in the United States.

CHAPTER XI

MATERNAL AND CHILD HEALTH / WOMEN'S HEALTH

The URHS questionnaire included a considerable amount of information on maternal and child health topics. With regard to health, there is great interest not only in the outcomes of pregnancies and complications associated with induced abortion, as discussed in previous chapters, but also with attitudes and practices of women and health care providers, and with facility practices that can have an impact on pregnancy outcomes and infant health and well-being. Each respondent who had given birth since the beginning of 1994 was asked a series of questions regarding her most recent pregnancies and deliveries, including such topics as prenatal care, utilization of various health services, breastfeeding, and cigarette smoking.

Prenatal care

Prenatal care is most beneficial when it begins early and continues regularly throughout a pregnancy. According to the Prenatal Care Program guidelines of the Ukraine Ministry of Health (MOH), the first prenatal care visit should occur before the thirteenth week of pregnancy. To evaluate the adequacy of prenatal care, it is necessary to monitor not only the timing of the initial visit, but also the total number of prenatal care visits during pregnancy. According to the prenatal care program implemented in 1995 by the MOH, healthy pregnant women should make one prenatal visit per month during first twenty weeks of pregnancy, two visits per months during the next ten weeks, and weekly prenatal visits during the final ten weeks.

About 10% of survey respondents reported that they received no prenatal care during their last pregnancy (since the beginning of 1994) leading to a live birth (Table 11.1 and Figure 11.1). Another 3% waited until the third trimester of pregnancy before they had any prenatal care. In about two-thirds of pregnancies (65%), prenatal care began during the first trimester, as recommended. Residents of the South region, those who were over 35 years old, those who had more than two children, and those who did not go beyond secondary education were the most likely to receive no prenatal care and were more likely to initiate it later. The likelihood of receiving early prenatal care was highest among urban women, residents of the Central region, the youngest women, those who had no children, and those with highest level of education.

Among women who received prenatal care, 81% made at least ten prenatal care visits (Table 11.2). About 10% of women made between five and nine visits, and only 7% of women made fewer than five visits during the last pregnancy resulting in a live birth since January 1994. Urban women made an adequate number of prenatal visits more often than rural women. However, in spite of the tendency to start prenatal care later, women over 35 years of age were at least as likely as younger women to make 10 or more visits.

Government facilities were the principal source for prenatal care among pregnant women with a live birth since January 1994, regardless of their characteristics (Table 11.3). Two-thirds of women received their prenatal care (or most of it) at women consultation clinics. However, rural women and residents of the Central region were somewhat less likely than others to use these facilities. These women received prenatal care at hospitals and maternity houses more often than other

Centers. Private clinics provided prenatal care for very few women (0.2%), mainly from the East region.

Fetal ultrasound is an important diagnostic procedure in obstetrics, which is valuable for: assessing gestational age, diagnosis of multiple pregnancy, malpresentations, hydatidiform moles, location of the placental site, and the detection of fetal abnormalities. Seventy-eight percent of women with recent live births had a diagnostic ultrasound during pregnancy (Table 11.4). Urban women (81%), Central region residents (82%), the youngest women (81%), and the most educated women (84%) reported the highest use of ultrasound.

Elevated blood pressure (BP) during pregnancy can be a sign of serious disease or pregnancy complications. Measurement of blood pressure should be done during every prenatal visit, in order to reduce the risk of adverse pregnancy and birth outcomes. Eighty-seven percent of women said that they had their BP measured during their pregnancy (Table 11.4, column 2). Differentials in BP measurement according to residence, age and education were very small. In addition to the 10% of women who received no prenatal care, 3% of women did not have their BP measured by their prenatal care provider. Urban women were more than three times more likely than rural women not to have their BP measured during their prenatal care visits. It is encouraging that BP was measured among all women over 35 years of age who visited prenatal care facilities.

Overall, 16% of women were told that they had high blood pressure during pregnancy (Table 10.5). Differences between population subgroups in reported high blood pressure rates tended to be very small. Thirty-four percent of women were told that they had anemia. This condition was reported most often by urban women, those who were younger than 35 years of age, and those with the highest level of education. Thirty-eight percent of women with recent births said they took iron supplements during pregnancy. Although women were not asked whether they took supplements as a preventive measure or because they had been diagnosed with anemia, it is likely that many of these women took supplements because of an anemia diagnosis. Iron supplements were taken most frequently by urban women, 15-24 year-olds, and the best educated.

Hospitalization during pregnancy

Through analysis of the frequency and length of the hospitalization of women during recent pregnancies (for reasons other than delivery) we tried to determine the likelihood and seriousness of health problems and pregnancy complications among Ukrainian women during pregnancy. Ukranian physicians, like most of their eastern European counterparts, hospitalize women for pregnancy complications more readily and for longer periods of time than physicians in other industrialized countries. Furthermore, hospital stays for delivery tend to be longer than elsewhere. Because of the changing economic situation in Ukraine and increasing influence of medical practice from other areas it would not be surprising to observe decreases in the likelihood and length of hospitalization associated with pregnancy complications and other health problems.

URHS respondents were asked whether and, if so, for how long they were hospitalized because of pregnancy-associated problems prior to their most recent delivery in the previous five years. Thirty-two percent of women with deliveries leading to a live birth since January 1994 reported being hospitalized for prenatal problems (Table 11.6). There were considerable differences in the likelihood of hospitalization according to respondent characteristics. The probability of

hospitalization was inversely correlated with birth order, from 38% for first births to only 14% for third or higher order births. Urban women were more likely to be hospitalized than rural women. Hospitalization also decreased with increasing age, which is strongly correlated with birth order. The proportion hospitalized was highest in the East and lowest in the West. In spite of economic changes and on-going health sector reform, the proportion of women hospitalized was virtually unchanged between 1994-96 and 1997-99.

As anticipated, the duration of hospital stays tended to be very long (Table 11.7 and Figure 11.2). The median stay was between two and three weeks and two-thirds lasted for two weeks or more. Only 7% of stays were reported to be shorter than one week. Urban women and women from the North region tended to have longer hospital stays than other women. The duration of hospitalization appears to be little changed in recent years.

Labor and delivery

Typically labor and delivery in Ukraine takes place in government obstetric facilities such as maternity houses, obstetric departments of MCH centers and regional hospitals, where trained personnel can provide women with specialized obstetric care. The top panel of Table 11.8 shows that 94% of deliveries leading to live births since 1994 took place at maternity houses. Most of the reminder (5%) occurred in MCH centers and hospitals. Fewer than one percent of deliveries took place at home.

Fifty-eight percent of women with recent live births reported receiving a post partum check-up within six weeks of delivery of their last baby (Table 11.9). The proportion receiving check-ups appears to have decreased somewhat between 1994-96 and 1997-99, from 60% to 55%. Rural women (54%), as well as those from the South (53%) and West (54%), were less likely than others to have received check-ups. The likelihood of having an exam decreased substantially with increasing age at delivery and increasing birth order. Most noteworthy is the apparent decline in proportions of women undergoing post partum exams in recent years. These declines have been especially marked in rural areas and in western Ukraine

Cigarette smoking during pregnancy

There is strong evidence that tobacco use affects not only the health of women, but also increases the risk of adverse maternal and perinatal outcomes as well. Overall, 9% of women were cigarette smokers at the time they became pregnant with their most recent pregnancy leading to a live birth since January 1994 (Table 11.10). Urban women were three times more likely than rural women to smoke. About half of women who were cigarette smokers when they became pregnant reported that they stopped smoking during their pregnancy. The proportion of those who gave up smoking during pregnancy was about the same among urban and rural women. Better educated women were more likely than less educated women to quit smoking. It has been well documented that smoking during pregnancy increases the risk that an infant will be born with low birthweight. Respondents who delivered low birthweight infants (i.e., under 2500 grams) were almost twice as likely as women whose babies were normal birthweight to be smokers at the beginning of pregnancy and throughout the pregnancy versus 4%, respectively).

Breastfeeding

Breastfeeding practices have a significant influence on the health of the child, as well as the fertility of the mother. Breast milk not only provides complete nutrition for infants. It also contains antibodies that protect infants from infection before their immune system is fully mature, thus decreasing infant morbidity and mortality. An additional effect of breastfeeding is its suppression of ovulation following a birth, thus reducing the risk of pregnancy. In the URHS women were asked whether each of her recently born children had been breastfed, were currently being breastfed, and, if currently breastfed, whether they had started receiving other foods or liquids yet.

Breastfeeding remains the norm across Ukraine. According to results of the URHS, 92% of babies born to respondents since January 1994 reportedly had been breastfed (Table 11.11). The percentage of children who were ever breastfed did not differ greatly across residence, age, and education categories of the population, though the proportion breastfed was somewhat lower in the Central region (86%). The percentage breastfed has not changed significantly in recent years; the proportions were very similar for babies born in 1994-1995, 1996-1997, and 1998-1999. The mean duration of breastfeeding for those babies who were breastfed was 7.5 months. The percentage was slightly higher in the Central region (9.3 months) and lower in the North region (5.9 months) than elsewhere. Otherwise, the differentials observed were small.

In Table 11.12, which examines current breastfeeding status, infants have been split into three age categories: under 4 months, 4-5 months, and 6-11 months. Almost eight of every ten infants under four months of age and just over half of those four to five months of age were still being breastfed. These figures drop off sharply for 6-11 month-old infants, among whom one-third were still being breastfed. Since some of the health benefits of breastfeeding may be diminished by the early introduction of other foods and liquids, it is important to examine the extent of exclusive breastfeeding. An infant was considered to be exclusively breastfed if he/she receives only breast milk. UNICEF recommends are that infants in the youngest age group (i.e., under four months) be exclusively breastfed, while the oldest group should be receiving breast milk as well as other foods. Although the prevalence of breastfeeding was high, for many young infants breastfeeding was only partial. Among infants under 4 months of age, only 31% were exclusively breastfed. Less than 1% of infants at least six months old were exclusively breastfed, while almost 70% were not being breastfed at all.

Figure 11.3 displays information on an assortment of indicators, both behaviors and circumstances that are negatively related to infant and/or maternal health: the proportions of women with live births since the beginning of 1994 who received no prenatal care during their first trimester, had fewer than 10 prenatal care visits, were hospitalized during pregnancy, smoked cigarettes during pregnancy, and did not breastfeed their infant.

Women's health behaviors

The URHS also included some questions that addressed issues of women's health. Two of these topics were cigarette smoking and general gynecologic check-ups.

Tobacco use is thought to have increased sharply throughout eastern Europe and the former Soviet Union for approximately the past decade. Nineteen percent of respondents said that they currently smoked cigarettes (Table 11.13). The most marked difference in smoking prevalence was

according to place of residence: urban women were three times more likely than rural women to be smokers (23% versus 7%). Smoking was most common among women at ages 20-24 (25%) and decreased with increasing age, such that it was lowest among the oldest respondents (14%). The fact that the proportions were lowest in the thirties and forties and that even the rates for teenagers exceeded those for the oldest respondents probably indicates that the prevalence of smoking has been increasing in recent years. There was only a weak correlation between smoking and level of education noted, with the least educated most likely to smoke. It is somewhat encouraging to note that few of the current smokers in the URHS could be considered heavy smokers, with only 3% of women reporting that they typically smoked more than ten cigarettes per day. A very small percentage of women (0.1%) reported that they smoked more than a whole pack of cigarettes per day.

It is recommended that women of childbearing age undergo a routine (i.e., not pregnancy related) gynecologic examination at least once per year. In fact, a majority of respondents (62%) said that they had had an exam during the previous 12 months (Table 11.14). However, a substantial number of women (11%) had never undergone such an exam. For very few women was the most recent exam more than four years previously. As expected, the distribution of years since the most recent gynecologic exam and whether women had ever had an exam were highly correlated with the age and marital status of respondents. The proportion without a recent exam was especially high among youngest women. The proportion without a recent exam was also higher among rural women compared to urban women, and was higher in the South and West regions than in the other regions.

CHAPTER XII

SEXUALLY TRANSMITTED INFECTIONS

Economic and social disruption often coincide with outbreaks or substantially increased incidence of adverse health conditions, especially infectious disease. It is now clear that the successor states of the former Soviet Union have been experiencing major epidemics of sexually transmitted infection (STI) (Renton et al., 1998; Waugh, 1999). For instance, the notification rate of new cases of syphilis in Ukraine increased from 6.0 per 100,000 population in 1990 to 144 per 100,000 in 1996 (Tichonova and Borisenko,1997). Official statistics indicate that STI rates are even higher among younger people than in the overall population.

Even more alarming than the rapid rise in STI rates generally, has been the recent upsurge of HIV infection in the former Soviet Union, particularly among injecting drug users. There is already a major HIV epidemic in Ukraine and it has shown no sign of abating yet (Lifson and Preble, 1997; Barnett et al., 2000; Dehne et al., 1999). According to United Nations estimates, while there were 150,000 HIV infected individuals overall in western Europe by the end of 1997, in Ukraine alone there were as many as many as 180,000 people infected with the AIDS virus. Besides the obvious effects of this epidemic on the health of Ukraine, it also likely to have a dramatic effect social and economic impact on the nation.

Rates of sexually transmitted infection are largely determined by sexual behavior on the one hand and by the accessibility, acceptability, and effectiveness of services for early diagnosis and treatment on the other. Both are likely to have been radically altered by recent economic, political, and social changes that have generated huge income differentials and high rates of poverty, along with rising unemployment, especially among women. The opening of borders has increased migration both within the country and outside of the country. This migration, combined with dramatically increased communications and exposure to western media, has opened Ukraine and its neighbors to many new influences. These influences have contributed to changes in sexual behavior and sexual relationships, which in turn have impacted the prevalence of STIs, most notably in the young adult population.

The decentralization of medical services, along with other changes in society, has made it more difficult than previously to estimate the true size of the STI epidemic. During the Soviet period, the system of STI control in Ukraine was based on a centrally controlled nationwide clinical dermatovenerology service (DVS). The responsibilities of the DVS included free diagnosis and treatment, identification of sexual contacts for tracing, and partner notification. Diagnostic testing was also provided through active screening in clinically and occupationally defined groups. Diagnostic facilities included serological and bacteriological laboratories attached to clinics that were accredited and had high levels of quality control. The DVS structure has basically survived in Ukraine since independence. However, in addition, a large number of private dermatovenerology clinics and offices have been established, where patients pay for services and receive testing and treatment anonymously. For certain STIs, such as gonorrhea, patients are more likely to avoid government-provided services, for several reasons. The ability to remain anonymous attracts patients to these private clinics. Moreover, these clinics tend to be better equipped and provide higher quality service than public clinics. They can provide adequate testing and treatment for

those who have the ability to pay, while free-of-charge government clinics are sometimes unable to do so. As a result, higher quality services are available to the minority who can afford the fees, while lower quality services are provided to the majority. Individuals with STIs who wish to remain anonymous and have inadequate resources to pay for treatment in the private sector are often forced to try to treat themselves.

The combined effect of a number of factors, including the impact of political and market reforms, a decline in the standard of living for much of the population, a decline in the government's ability to fund health services, economic dislocation, a poorly controlled private medical sector, and the growing prevalence of self-medication, among others, has brought about an even greater need than in the past to emphasize primary prevention of STIs.

The STI module of the URHS was designed to help determine the population's knowledge about and experience with sexually transmitted infections/diseases and to identify the subgroups of the population with the greatest need for interventions to enhance primary prevention of STIs. These findings will also help to define factors which could influence the acceptability and effectiveness of primary prevention messages, in order to improve the likelihood of success of any educational efforts. The URHS included questions on awareness of STIs including HIV/AIDS, experience of specific STIs and conditions and symptoms often related to STIs, perceived risk of STIs, place of treatment for those reporting that they had been infected, and reasons for not seeking treatment. It should be kept in mind that, since these estimates are based on self-reports, there is a strong likelihood that the occurrence of STI's is underreported, owing to undiagnosed conditions and unwillingness to report their occurrence.

Awareness of STIs and lifetime history of STI diagnosis

The proportion of respondents who reported they had ever heard of selected sexually transmitted (or potentially sexually transmitted) conditions are displayed in Table 12.1. Knowledge of syphilis was nearly universal, with only 2% reporting they had never heard of it. The only other conditions known by a large majority of women were pelvic inflammatory disease (5% unaware), gonorrhea (9%), and genital ulcers (9%). The conditions with which the most respondents were unfamiliar were human papilloma virus (HPV) (74%), genital herpes (66%), and chlamydia (54%).

Awareness of STIs varied substantially according to respondent characteristics. Every condition asked about was much less widely known among rural women, 15-24 year-olds, those with incomplete secondary education, and the sexually inexperienced than among other groups of women. Also, women from West region were consistently less likely than residents of other regions to be aware of these conditions. The greatest differences tended to be for those conditions which were least widely known, such as chlamydia, genital herpes, and human papilloma virus.

A very high proportion of women reported having had pelvic inflammatory disease (PID) (38%) or genital ulcers (38%) at some time during their life (Table 12.2). These most common conditions are not specific diseases, nor are they necessarily sexually transmitted, but are often result from the presence of sexually transmitted infection. The diagnosis of these conditions does not always require special laboratory equipment or specialists, but can be done by obstetrician-gynecologists.

Other diseases that an at least 2% of respondents reported ever having been diagnosed with were: trichomoniasis (4%), syphilis (2%), gonorrhea (2%), and chlamydia (2%).

The lifetime incidence of almost every disease asked about was several times higher in urban areas than in rural areas. In the cases of syphilis and gonorrhea it was about seven times higher in urban areas. Only for PID and genital warts were the urban-rural differences relatively small. There is a possibility that those diseases that require special diagnostic laboratory equipment and methods for accurate diagnosis were underdiagnosed in rural areas.

The percentage of women ever diagnosed with almost all the STIs about which women were asked increased with respondents' age and education level. There is no obvious reason for a direct correlation between education and actual STI occurrence. It is more likely that the better educated women were more likely to have their conditions correctly diagnosed or to be aware of what their diagnosis was. This may support the hypothesis that there was underreporting by certain groups of women for many of the conditions asked about. The lifetime incidence of syphilis and gonorrhea among residents of the West region (6% and 5%, respectively) was at least three times higher than among respondents of the other regions. Trichomoniasis was much more likely to be reported by women in the South (6%) and East (4%) than elsewhere.

All sexually active women were asked whether they had experienced any selected symptoms potentially related to sexually transmitted infections during the past 12 months (Table 12.3). One-fifth of respondents reported experiencing vaginal discharge during that time. Vaginal discharge in combination with certain other symptoms is often indicative of STIs. Ten percent of women said that they experienced vaginal discharge accompanied by lower abdominal pain, 5% had vaginal discharge with itching, and 3% had vaginal discharge with painful urination. Fourteen percent of women complained of having sores or warts in the genital area during the previous 12 months. There were no substantial differences in the proportions reporting symptoms according to the residence, age, or educational attainment of women.

Treatment for possible symptoms of STIs

Almost one-third of respondents (31%) who experienced possible symptoms of STIs in the previous 12 months did not consult a health care provider for diagnosis or treatment (Table 12.4). The majority of respondents who experienced possible STI symptoms went to a women's consultation clinic or outpatient clinic for treatment (58%). The proportion of respondents who reported being treated at a private clinic or office was relatively small (3%). Fewer than 1% of women were treated at dermato-venereal disease (DVD) clinics. The proportion of women who did not seek treatment decreased with increasing education. It should come as no surprise that urban women were more likely than rural women to visit private clinics, probably because of better accessability and higher incomes.

Respondents who did not seek treatment for symptoms of possible STIs gave a variety of reasons for not doing so (Table 12.5). Almost two-thirds of them (65%) reported that they thought their symptoms were not serious enough to warrant going for treatment. The only other reasons commonly given were: services were too far away or too expensive (11%); fear of poor treatment or confidentiality (6%); and embarrassment (3%). Feeling that the symptoms were not serious was the predominant reason for not seeking services among all categories of women. Distance and cost

(i.e., access to services) were most commonly mentioned by respondents with incomplete secondary education (22%). Fear of poor treatment and confidentiality was most common among urban respondents (7%), and previously married women (13%). Embarrassment was most likely to be mentioned by respondents who had never been in union and the youngest respondents. Not knowing where to go for services was rarely mentioned, except among 15-24 year-old respondents (4%).

Knowledge about prevention/Perceived risk of acquiring STIs

It is extremely difficult to significantly reduce the rate of STIs in a population that does not have knowledge about the risk factors, pathways, signs and symptoms, and preventive methods of these diseases. Each respondent was asked whether she was aware that individuals can be infected with HIV or STIs without showing any symptoms of disease. Survey responses showed considerable lack of knowledge among Ukrainian women about certain aspects of STIs and HIV/AIDS and their prevention (Table 12.6). About one-third of respondents were not aware that someone could be infected with HIV and exhibit no symptoms. About one-half of women lacked awareness that people with STIs could have no symptoms. Those respondents who lived in urban areas were somewhat more likely than rural women to be aware of this aspect of HIV and STIs. Lack of knowledge was especially common among the women residing in the West region of the country. There was little difference between age groups. Awareness of both HIV and STIs substantially increased with education. Sexually experienced women were more knowledgeable than inexperienced women, but only slightly so.

Multiple studies have demonstrated that condoms are highly effective in preventing many STIs, including HIV infection, when used consistently and correctly. Respondents were asked their opinions regarding the protection that condoms provide against HIV and other STIs. Only 6% of women thought that condoms provided excellent protection (Table 12.7). Roughly equal numbers of respondents said that condoms were good (30%) or fair (35%) at preventing transmission of infection. Twelve percent of respondents felt that condoms afforded poor protection. About 18% of women said they did not know about the effectiveness of condoms in preventing transmission of HIV/AIDS and other STIs. There was very little difference in opinions about condoms protective power between the subgroups of respondents, except for larger percentages answering "I do not know" among the less well educated and the sexually inexperienced. It is clear that Ukrainian women tend to underrate the protection afforded by condoms. There is a great need to inform the population better about the role of condoms in protection against the spread of infection, when used properly.

Perceptions of risk of acquiring STIs reflect the knowledge of a population about the basic risk factors and knowledge of means of preventing the transmission of these diseases. About 5% of the Ukrainian women perceived themselves at high risk for acquiring an STI, with another 6% saying they were at medium risk (Table 12.8). Another 29% of respondents felt that they were at low risk, while the majority, about six of every ten women considered themselves to be at no risk of contracting an STI. Women with multiple sex partners in the previous 12 months were substantially more likely to perceive themselves as being at high or medium risk of infection. Even so, it appears that many such individuals may have underestimated their risk, since about two-thirds considered themselves to be at low risk or no risk. Rural respondents, the youngest respondents, and those who reported having no sexual partners during the previous 12 months were the groups

of women who most often perceiving themselves not to be at risk for STIs.

CHAPTER XIII
DOMESTIC VIOLENCE

Violence against women has been increasingly recognized as an important clinical and public health issue. Violence and the threat of violence can result not only in psychological dysfunction and physical trauma, but also has the ability to affect women's reproductive health. Intimate partner violence should be of particular concern to women of reproductive age and their health providers. Intimate partner violence can put women at higher risk for lack of contraceptive use or inconsistent use, causing women to remain unprotected against STIs and unintended pregnancy. Violence during pregnancy can also be associated with inadequate prenatal care (Martin et al., 1999), increased maternal morbidity (Parker 1994), and poor pregnancy outcomes (Petersen et al.1997, Campbell et al. 1999). The children of women who are subjected to intimate partner violence can also be adversely affected. Children of such women have been shown to have elevated rates of emotional, behavioral, and cognitive abnormalities (Jaffe et al.1990).

There is little, if any, nationally representative data available on the extent of the problem of domestic violence in Ukraine. "While information about domestic violence in Ukraine from official sources is limited, the interviews conducted by the Minnesota Advocates confirmed that it is a widespread problem in the country." (Minnesota Advocates for Human Rights, 2000). For instance, a survey by the World Bank and the KIIS showed that 12% of women under age 28 said they had experienced violence at the hands of their husbands. A large percentage of police calls are related to domestic abuse, as are a large percentage of emergency room visits.

The 1999 URHS included a module with questions about women's lifetime and previous year's experience of being subjected to physical violence or threats of violence by their partner. Although there is a high risk of underreporting of such incidents, the survey serves to demonstrate the minimum proportion of women who are victims of violent behavior or the threat of such behavior in their homes. The module also included questions on abuse between parents when the respondent was growing up and abuse of the respondent as a child. Childhood exposure to abuse can exert long-term negative effects on interpersonal relationships, emotional distress, somatic symptoms, and substance abuse (Felitti et al. 1999). Almost one of every five respondents (18%) recalled that their parent or stepparent had been abused by their partner while the respondent was growing up (Table 13.1). Almost 30% of women reported that they were physically abused as a child by someone in their household. There were some noticeable, but not extreme, differentials in the proportions reporting these adverse childhood experiences among residential and sociodemographic groups. There were no consistent differences according to residence or age. The least well educated were the most likely to have these experiences. With regard to marital status, violent experiences were most common among those who lived in unregistered marriage, followed by those who had been divorced or separated. The proportion with parents who abused each other was about twice as high among women in unregistered marriages as among the never married.

Each respondent who had ever been married or lived with a man was asked questions whether she had been subjected to particular types of physical violence or threats of violence committed by her partner, either at any time during her life or in the previous 12 months (Table 13.2). Overall, 19% of ever-married women had ever had a partner threaten to hit her, 18% had ever been pushed or slapped, 13% had been punched, kicked, or hit with an object, and 4% had been threatened with a

weapon. Twenty-one percent had had any of these acts committed against her by her partner. Eight percent had experienced any of these types of violence within the previous 12 months, with most of them having had her partner threaten to hit her or actually pushing or slapping her.

The proportions reporting that violent incidents or the threat of them had ever occurred was consistently, but only slightly, higher in rural areas than in urban areas. Differentials were somewhat greater for incidents in the previous 12 months. Women with incomplete secondary education were roughly twice as likely to report violent incidents as the most highly educated women, with the complete secondary group between them. As age increased, so did the likelihood of ever experiencing violent incidents. However, this appears to be solely a function of the number of years exposed to the risk of violence, since the proportions reporting such incidents in the past 12 months was fairly constant across ages for each of the specific types of violence. In fact, the proportion of 15-19 year-olds reporting any type of violence recently was slightly higher than for any other age group. Divorced women and women who lived in unregistered marriage reported being abused considerably more often than respondents in registered marriages. Particularly alarming is the high proportion of the youngest women who reported domestic violence incidents, especially threats with a weapon, during the past year. (Rates for the previous 12 months for divorced, separated, and widowed women are misleadingly low, since most of these women were not been exposed to the risk of partner abuse in the months leading up to interview.) It is noteworthy that women in unregistered marriages were about twice as likely as women in registered marriages to suffer abuse, both over their lifetime and recently.

Fifty-four percent of women who reported abuse by their partner in the previous 12 months reported sustaining injuries from these incidents. Seven percent of abused women sought medical treatment, with about half of them (3%) incurring injuries serious enough to be hospitalized (Table 13.3). Even though urban women were less likely than rural women to be victims of violence, abused urban women were more likely to say they sustained injuries and sought treatment than rural women. The percentage reporting injury tended to be highest among those who had highest education and those who were not in a registered marriage.

Most women who had been physically abused discussed these incidents with others. These discussions were most often with family members (68% of women subject to violent incidents) or friends (56%) (Table 13.4). Women were relatively unlikely to discuss incidents with anyone other than family and friends. Just 16% of women went to the police for the help. A relatively small proportion of them (9%), probably predominantly those who sought medical treatment, had discussions with medical or social workers. Rural women, younger women, and those in a registered marriage were less likely than others to discuss these incidents than other subgroups of women were. The groups most likely to report violent incidents to the police were divorced and separated women (49%) and women 35-44 years old (22%).

Alcohol use has been documented as a major health and social problem in much of the former Soviet Union. It has been shown to be a major contributor to declines in male life expectancy and to the deterioration of health status generally in Russia. It has also been linked to problems of violence generally, including the occurrence of intimate partner violence. Clearly, alcohol consumption was closely related to violent behavior among the URHS respondents. Among women subjected to intimate partner violence in the previous 12 months, 78% reported that their partner

had been drinking alcohol at the time of the most recent abuse (Table 13.5). Eighty-three percent said he had been drinking at any time in the past year when she was subjected to violent incidents. Violence was closely tied to violent acts throughout the population, but was even more prevalent among certain subgroups than among others. Violence was most often correlated with alcohol consumption among rural women, better educated women, and women ages 30-44.

CHAPTER XIV

CONCLUSIONS

Analysis of data from the 1999 Ukraine Reproductive Health Survey has allowed us to draw a number of important conclusions. Some of the most significant are the following:

- The 1999 URHS appears to be highly representative of the population of women of childbearing age in Ukraine. Distributions of age and other characteristics of respondents closely match those from official sources.

- In key areas the data collected in the survey appear to be relatively reliable and complete. Survey fertility rates closely resemble official rates. Survey abortion rates exceeded those from vital statistics by a significant amount, indicating that the completeness of reporting was likely to be good. Response rates were high and refusal rates were low. Few respondents were unwilling to answer questions on sensitive topics, such as abortion, contraception, sexuality, and health problems.

- Although there are certainly some important differences across countries in the region, there are also great similarities between many countries that were either part of the Soviet Union or under the domination of the Soviet Union prior to its break-up. Because of the commonalities between these countries socially, culturally, economically, and demographically, many of the general conclusions derived from the 1999 URHS are likely to be applicable to neighboring countries, and can be valuable in suggesting reproductive health policies and priorities there.

- Not only did the surveyed population have extremely low rates of childbearing, there is no indication that Ukrainian women intend to have larger families than currently. Few women with more than one child desired to have additional children and large numbers of women with just one child said they planned to have no more. Such low levels of desired childbearing, especially with the limited use of effective long-term contraceptive methods and a typically early start and finish of desired fertility, enhances the probability of unintended pregnancies and abortions. Although a substantial number of women reported infertility problems, there is no reason to believe that infertility (or low rates of sexual activity) is an important factor in bringing about the low fertility rate.

- Rates of induced abortion, though not nearly as high as in some other countries in the region, such as Russia, Georgia, and Romania, remain very high by international standards. The induced abortion rate was more than 50 per 1,000 woman per year for the period preceding the survey and the number of abortions still exceeded the number of live births. However, it seems clear that the incidence of induced abortion has been declining at a relatively rapid rate. Obviously, there is considerably more progress that can be made in reducing the rate of abortion, both through increased use of modern contraception and

improved use of contraceptive methods.

- Rates of abortion complications remain relatively high. About one-sixth of abortions result in what women describe as complications, and one of every 20 abortions results in hospitalization for those complications. Even though we have no data on severity of complications, such a rate of complications is almost certainly producing much greater maternal morbidity and greater costs for the health care system than replacing most abortion with successful contraception would.

- Overall contraceptive prevalence rates among sexually active women were high, not far below rates for most other developed countries. The IUD and condoms were the only modern methods in widespread use nationally. In contrast to what some have contended, Ukrainian women were not relying predominantly on abortion for birth prevention. Women tend to have highly negative opinions about induced abortion, but have used it frequently seemingly because of inadequate supplies of modern contraceptives or lack of accurate information concerning contraception and high rates of pregnancy while using contraceptive methods. In spite of the relatively high rate of contraceptive prevalence, unmet need for contraception remains quite high, mainly because the desire for children is so low.

- Almost half of contraceptors were employing methods with high failure rates, contributing to Ukraine's high incidence of unintended pregnancy and induced abortion. Withdrawal was the most commonly used method, with periodic abstinence also commonly employed. Because of the high failure rates associated with these methods, substantial declines in abortion incidence depend to a certain extent on switching to more effective methods and not just promoting contraceptive use in general. Only about one of every five users of these methods were aware of their poor effectiveness relative to modern methods.

- Because of the typically early end of desired childbearing among Ukrainian women, a great need for expanded use of long-term contraceptive methods exists. Except for the IUD, long-term methods were rarely used in Ukraine. Clearly, there are major barriers (legal, social, resource-related) to rapid expansion of contraceptive sterilization, but steps can be taken to improve and increase acceptability and availability of these safe and effective procedures. Another relatively long-term method, contraceptive implants, is now becoming more widely available in Ukraine. Unless contraceptive sterilization and other long-term methods become a realistic option for Ukrainian women and couples, unintended pregnancies are likely to remain common.

- Contraceptive counseling following delivery and especially induced abortion should be given greater attention. Relatively few women receive contraception of prescriptions for methods following these events, leading to a higher incidence of unintended pregnancy and induced abortion than there would likely be with more and effective counseling.

- Sexual activity among younger teenagers, while still not the norm, has been increasingly

common. It is not unreasonable to expect that activity will increase even further. This increased activity, plus the fact that fewer than half of young respondents reported the use of contraception the first time they had sexual intercourse, as well as increases in rates of sexually transmitted infections, points toward a need for increased sex education and policies designed to protect the health of adolescents.

- About one in every ten respondents with a recent pregnancy resulting in a live birth reported that they received no prenatal care during that pregnancy, considerably higher than the reports from other countries in the region. This finding should be further investigated to determine the accuracy of the result. If it is accurate, it is important that actions be taken to increase prenatal care coverage to reduce both maternal and infant morbidity.

- Rates of pregnancy-related hospitalization, as well as the typical length of those hospitalizations, were high in Ukraine, as in much or all of the former Soviet Union. This situation should be further studied to determine how much of the hospitalization stems from conditions that truly warrant it and how much results from a greater tendency than in the West to hospitalize for relatively minor conditions. The findings could point toward a need for more and better prenatal services to reduce the likelihood or severity of conditions leading to hospitalization or toward a reduction in the incidence of hospitalization given the occurrence of certain conditions.

- Sexually transmitted infections are a serious problem in Ukraine and, by all indications, are a growing problem as well. Besides high lifetime incidence of several conditions and infections, substantial numbers of women reported recent combinations of symptoms that are most often associated with sexually transmitted infections. About one-third of women who experienced recent symptoms that possibly resulted from STIs did not seek treatment for those symptoms. Such untreated conditions can progress to more serious complications for women and can leader to greater spread of infection.

- There were very large percentages of women with inadequate knowledge of certain aspects of STIs and HIV, indicating a need for better communication of health messages to the population. For instance, about one-half of respondents did not know that people infected with STIs might exhibit no symptoms. Only about one-third said that condoms provided good or excellent protection from infection with HIV or other STIs.

- Domestic abuse is increasingly recognized as a major problem, not just in Ukraine, but in many countries around the world. It is commendable that those carrying out the survey were strongly encouraged to collect information on this sensitive issue. Even if the figures from the URHS are underestimated, it still demonstrates that violence by men against their partners and resulting injuries are a common occurrence in Ukraine. It is also quite clear that alcohol plays a significant role in domestic violence. These results and other recent work on the subject points out the need to take action to try to reduce the incidence of violence.

Overall, the URHS has provided a wealth of information on a wide range of reproductive health topics and yields a picture of much of the current reproductive health situation in the country. It, more importantly, yields information for the nation, donor organizations, international agencies, and NGOs that can be used to help determine the scope of various reproductive health needs and the types of interventions and policies that might help improve the situation. The information presented in this report is by no means an exhaustive analysis of the data collected. There remains a large amount of information on all topics that can be further analyzed both by in-country and external researchers and reproductive health experts in order to help improve reproductive health status in Ukraine.